U.S. Department of Housing & Urban Development

2016 Strategic Sustainability Performance Plan

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Table of Contents

Agency Policy Statement

The mission of the U.S. Department of Housing and Urban Development is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers, meet the need for quality affordable rental homes, utilize housing as a platform for improving quality of life, build inclusive and sustainable communities free from discrimination, and transform the way HUD does business. This Strategic Sustainability Performance Plan lays out our ambitious goals and commitments for the coming year.

HUD has offices and staff across the Nation, yet its Headquarters, the Robert C. Weaver Federal building, is the only facility that it operates. In recent years HUD has made significant progress in improving the condition and operation of the 48-year-old facility. Examples include completing a large multi-year Energy Savings Performance Contract (ESPC), and multiple projects in coordination with the General Services Administration (GSA) such as the roof replacement project largely funded by the American Recovery and Reinvestment Act (ARRA) and a large scale renovation on the Weaver Building's second floor that included open space layout and energy efficient design practices. HUD also has a Memorandum of Understanding with the GSA to lease sustainable office space for HUD staff working in other locations across the Nation. These are just a few examples of HUD's efforts to meet Green House Gas emissions reductions goals and transform HUD to a more environmentally and sustainability conscious agency.

HUD is also greatly committed to planning and preparing for the risks and vulnerabilities associated with climate change. HUD has commissioned an agency work group, known as the HUD Climate Council, devoted to developing, progressing, and tracking the agency's climate resilience goals. In addition, HUD's partnerships are an integral part of the agency's commitment to sustainability and climate change resilience. HUD is a core member of the Federal Partnership for Sustainable Communities, along with the Environmental Protection Agency and Department of Transportation. This collaborative effort will promote a broad-based strategy to lower carbon emissions and household costs through integrated housing and transportation programs and planning.

HUD continues to improve existing programs and pursue new initiatives to reduce greenhouse gas emissions, reduce energy and water use, build a clean energy economy, and mitigate the effects of a changing climate. As a Department we remain deeply committed to complying with environmental, energy, and public health statutes, and know that we must lead by example in ensuring that our facilities and operations become models of sustainability.

Patricia Hoban-Moore
Chief Administrative Officer
Chief Sustainability Officer

Executive Summary

STRATEGIC SUSTAINABILITY PERFORMANCE PLAN

Executive Summary

The Department of Housing & Urban Development (HUD) perceives deep connections between HUD's mission of creating strong, sustainable, inclusive communities and the sustainability goals of Executive Order 13514 and the recently signed Executive Order 13693. While HUD has a relatively small directly managed federal footprint and owns no buildings, the Department envisions great opportunity to integrate sustainability with the agency mission. This document is an overview of HUD's strategies and implementation progress toward achieving its sustainability goals.

SECTION 1: VISION

The connections between HUD's mission and operations are deep and meaningful, and progress towards the goals of this Sustainability Plan ultimately reflect the integrity of the Department's commitment towards its mission. HUD fully intends to implement its goals in order to not only reduce the agency's carbon footprint, but also to lay the framework for a sustainable future. One of example of HUD's deep commitment to sustainability lies in its recent accomplishment of LEED Silver Certification for Operations and Maintenance at HUD headquarters building. The building received this certification for its water efficiency, energy optimization, sustainable siting, materials use, and renewable energy use among others. This is remarkable achievement for a 48 year old historically designated building and speaks volumes about the agency's commitment to the pursuit of sustainability.

SECTION 2: LEADERSHIP

HUD's Office of Administration and Office of Economic Resilience both play key leadership roles in implementing sustainability practices and planning for the impacts climate change. HUD's Chief Administrative Officer has assumed the role of Chief Sustainability Officer (CSO) and provides leadership for the accomplishment of departmental sustainability goals. Alternatively, the Office of Economic Resilience leads multiple HUD work groups, such as the HUD Climate Council, and is devoted to leading the department in planning and combatting the effects of climate change.

SECTION 3: PERFORMANCE REVIEW

Goal 1: Greenhouse Gas (GHG) Reduction

Scope 1 & 2 GHG Reduction Goal

E.O. 13693 requires each agency to establish a Scope 1 & 2 GHG emissions reduction target to be achieved by FY 2025 compared to a 2008 baseline. HUD's 2025 Scope 1 & 2 GHG reduction target is 68.3%.

Scope 3 GHG Reduction Goal

E.O. 13693 requires each agency to establish a Scope 3 GHG emission reduction target to be achieved by FY 2025 compared to a 2008 baseline. HUD's 2025 Scope 3 GHG reduction target is 51%.

a. INTEGRATION

The following agency policies, planning documents and/or related reporting documents are integrated with HUD's accomplishment of this goal:

- Reporting: Annual GHG Inventory and Energy Data Report, OMB Scorecard, DOE Annual Federal Fleet Report to Congress
- Climate Change Adaptation Plan
- Fleet Management Plan

b. EVALUATION MEASURES

- Progress toward achieving FY2025 goals for GHG reduction targets for Scopes 1, 2 & 3
- Facility energy intensity reduction

c. SUCCESSES

- Reduced Scope 1&2 GHG by 44.3% and on target for FY 2025 goals
- Reduced Scope 3 GHG by 42.2% and on target for FY 2025 goals
- Initiated feasibility study for additional ESPC work and identified several potential Energy Conservation Measures (ECMs)
- Implemented Capital Bikeshare subsidy program

d. CHALLENGES

- Coordination of the ESPC provided maintenance with current in-house O&M contractor has created some logistical problems and the need to better define responsibilities.

e. LESSONS LEARNED

- Design changes during the recent ESPC to correct heating problems impacted planned energy reductions.

f. PLANNED ACTIONS

- Develop a rough order of magnitude for identified ECMs
- Perform in depth review with Energy Services Contractor (ESCo) to identify measures for reducing the use of heating hot water and natural gas.

<u>Goal 2: Sustainable Buildings</u>

Building Energy Conservation Goal

The Energy Independence and Security Act of 2007 (EISA) requires each agency to reduce energy intensity 30% by FY 2015 as compared to FY 2003 baseline. Section 3(a) of E.O. 13693 requires agencies to promote building energy conservation, efficiency, and management and reduce building energy intensity by 2.5% annually through the end of FY 2025, relative to a FY 2015 baseline and taking into account agency progress to date, except where revised pursuant to Section 9(f) of E.O. 13693.

Building Efficiency, Performance, and Management Goal
Section 3(h) of E.O. 13693 states that agencies will improve building efficiency, performance, and management and requires that agencies identify a percentage of the agency's existing buildings above 5,000 gross square feet intended to be energy, waste, or water net-zero buildings by FY 2025 and implementing actions that will allow those buildings to meet that target. HUD's 2025 target is N/A% (See note below).

Guiding Principles for Sustainable Federal Buildings
Section 3(h) of E.O. 13693 also states that agencies will identify a percentage, by number or total GSF, of existing buildings above 5,000 GSF that will comply with the *Guiding Principles for Sustainable Federal Buildings (Guiding Principles)* by FY 2025.

a. INTEGRATION
The following agency policies, planning documents and/or related reporting documents are integrated with the HUD's accomplishment of this goal:

- Reporting: OMB Scorecards, EISA Section 432 Facility Evaluations
- Climate Change Adaptation Plan

b. EVALUATION MEASURES

- Facility energy intensity reduction
- Use of renewable energy
- % of owned and FRPP reported leased building that meet sustainability guiding principles

c. SUCCESSES

- Completed the final phases of the ESPC for the HUD Headquarters building includeing the installation of condensing boiler heating system and domestic hot water connection, HVAC retrofits throughout, new Energy Management Control System (EMCS) water conservation measures, and building envelope improvements.

d. CHALLENGES

- HUD does not own any buildings and does not construct new federal buildings, nor does the agency report in FRPP. The agency does not make site selection decisions. HUD has requested that GSA sustainability guiding principles be incorporated into all leases entered into on behalf of HUD.

e. LESSONS LEARNED - None

f. PLANNED ACTIONS

- Develop a rough order of magnitude for identified ECMs
- Perform in depth review with Energy Services Contractor (ESCo) to identify measures for reducing the use of heating hot water and natural gas.
- Provide training opportunities to all applicable staff

Goal 3: Clean and Renewable Energy

Clean Energy Goal
E.O. 13693 Section 3(b) requires that, at a minimum, the percentage of an agency's total electric and thermal energy accounted for by renewable and alternative energy shall be not less than: 10% in FY 2016-17; 13% in FY 2018-19; 16% in FY 2020-21; 20% in FY 2022-23; and 25% by FY 2025.

Renewable Electric Energy Goal
E.O. 13693 Section 3(c) requires that renewable energy account for not less than 10% of total electric energy consumed by an agency in FY 2016-17; 15% in FY 2018-19; 20% in FY 2020-21; 25% in FY 2022-23; and 30% by 2025.

a. INTEGRATION
The following agency policies, planning documents and/or related reporting documents are integrated with the HUD's accomplishment of this goal:

- Reporting: Annual GHG Inventory and Energy Data Report, OMB Scorecard
- Climate Change Adaptation Plan

b. EVALUATION MEASURES

- Clean and renewable energy use.

c. SUCCESSES

- HUD is purchasing the required level of RECs to meet its goals through a GSA regional power procurement aggregate. HUD has also begun purchasing additional renewable energy and carbon offsets for the purpose of achieving LEED certification.

d. CHALLENGES

- HUD does not own lands capable of siting renewable energy projects
- Most of HUD's buildings are leases for which it does purchase or report utilities usage.

e. LESSONS LEARNED - None

e. PLANNED ACTIONS

- HUD will continue to participate in the GSA area wide utilities agreement which secures electricity pricing for multiple buildings in the region and includes REC purchases for the HUD Headquarters. HUD does not purchase energy for any of its other buildings which are leased and managed through GSA.
- Revisit the potential for adding solar to the HUD Headquarters roof top

Goal 4: Water Use Efficiency and Management

Potable Water Consumption Intensity Goal
E.O. 13693 Section 3(f) states that agencies must improve water use efficiency and management, including stormwater management, and requires agencies to reduce potable water consumption intensity, measured in gallons per square foot, by 2% annually through FY 2025 relative to an FY 2007 baseline. A 36% reduction is required by FY 2025.

Industrial, Landscaping and Agricultural (ILA) Water Goal
E.O. 13693 section 3(f) also requires that agencies reduce ILA water consumption, measured in gallons, by 2% annually through FY 2025 relative to a FY 2010 baseline.

a. INTEGRATION

The following agency policies, planning documents and/or related reporting documents are integrated with the HUD's accomplishment of this goal:

- Reporting: OMB Scorecards, EISA Section 432 Facility Evaluations, Annual GHG Inventory and Energy Data Report

b. EVALUATION MEASURES

- Potable water reduction

c. SUCCESSES

- 49.1% reduction in potable water use intensity exceeding 2020 reduction goal.

d. CHALLENGES

- HUD has performed extensive water conservation for its only subject building, this leaves little opportunity to make addition progress on this goal.

e. LESSONS LEARNED

- Through the ESPC, HUD was able to complete water savings retrofits building wide, this also included large flush pedal style urinals that would have been difficult and cost prohibitive to replace. Through field testing/trials the ESPC contractor was able to find compatible flush kits and the agency was able to add the retrofits to the project.

f. PLANNED ACTIONS

- Review building water use to identify conservation opportunities
- Perform Quality Assurance monitoring to ensure O&M contractors are tour building mechanical areas, immediately reporting and repairing leaks.
- Add language to the O&M contract to require weather monitoring and reporting of usage for the rain delay function for landscape irrigation.

Goal 5: Fleet Management

Fleet Petroleum Use Reduction Goal

E.O. 13514 and the Energy Independence and Security Act of 2007 (EISA) required that by FY 2015 agencies reduce fleet petroleum use by 20% compared to a FY 2005 baseline.

Fleet Alternative Fuel Consumption Goal

Agencies should have exceeded an alternative fuel use that is at least 5% of total fuel use. In addition, E.O. 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, required that agencies increase total alternative fuel consumption by 10% annually from the prior year starting in FY 2005. By FY 2015, agencies must have increased alternative fuel use by 159.4%, relative to FY 2005.

Fleet Per-Mile Greenhouse Gas (GHG) Emissions Goal

E.O. 13693 Section 3(g) states that agencies with a fleet of at least 20 motor vehicles will improve fleet and vehicle efficiency and management. E.O. 13693 section 3(g)(ii) requires agencies to reduce fleet-wide per-mile GHG emissions from agency fleet vehicles relative to a FY 2014 baseline and sets new

goals for percentage reductions: not less than 4% by FY 2017; not less than 15 % by FY 2020; and not less than 30% by FY 2025.

E.O. 13693 Section 3(g)(i) requires that agencies determine the optimum fleet inventory, emphasizing eliminating unnecessary or non-essential vehicles. The Fleet Management Plan and Vehicle Allocation Methodology (VAM) Report are included as appendices to this plan.

a. INTEGRATION

The following agency policies, planning documents and/or related reporting documents are integrated with the HUD's accomplishment of this goal:

- Reporting: Annual GHG Inventory and Energy Data Report, OMB Scorecard, DOE Annual Federal Fleet Report to Congress
- Climate Change Adaptation Plan
- Fleet Management Plan

b. EVALUATION MEASURES

- Per mile GHG reduction and Alternative fuel use

c. SUCCESSES

- Completed optimal fleet inventory update
- Completed updates to the Fleet Management Plan
- Launched an awareness campaign for alternative fuel use

d. CHALLENGES

- Exemption of HUD Law Enforcement Vehicles
- Underutilization of alternative fuels for eligible vehicles

e. LESSONS LEARNED- None

e. PLANNED ACTIONS

- Perform Vehicle Allocation Methodology (VAM) on eligible HUD Fleet.
- Replace eligible vehicles with high efficiency alternatives.
- Continue to promote the use of alternative fuels in all areas where available.

Goal 6: Sustainable Acquisition

Sustainable Acquisition Goal

E.O. 13693 section 3(i) requires agencies to promote sustainable acquisition by ensuring that environmental performance and sustainability factors are considered to the maximum extent practicable for all applicable procurements in the planning, award and execution phases of acquisition.

Biobased Purchasing Targets

The Agricultural Act of 2014 requires that agencies establish a targeted biobased-only procurement requirement. E.O. 13693 section 3(iv) requires agencies to establish an annual target for increasing the number of contracts to be awarded with BioPreferred and biobased criteria and the dollar value of BioPreferred and biobased products to be delivered and reported under those contracts in the following fiscal year.

Progress and Actions
HUD will ensure that 95% of applicable new contract actions, including task or delivery orders under new contracts and existing contracts, meet sustainable acquisition requirements, and require the supply or use of products and services that are energy efficient (Energy Star or FEMP-designated), water efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives.

HUD will ensure its affirmative procurement plan, policies, and programs are updated to ensure all Federally-mandated designated products and services are included in all relevant acquisitions.

Challenges
As indicated by the HUD Sustainability Acquisition Report, the agency does very little procurement in product or service areas related to sustainable acquisition. HUD will continue to include energy efficient, biobased and other FAR sustainability clauses in all new contract actions as appropriate. Additionally, HUD will continue to monitor for compliance in the quarterly audits and ensure compliance with contractor reporting requirements for biobased purchases.

Goal 7: Pollution Prevention & Waste Reduction

Pollution Prevention & Waste Reduction Goal
E.O. 13693 section 3(j) requires that Federal agencies advance waste prevention and pollution prevention and to annually divert at least 50% of non-hazardous construction and demolition debris. Section 3(j)(ii) further requires agencies to divert at least 50% of non-hazardous solid waste, including food and compostable material, and to pursue opportunities for net-zero waste or additional diversion.

a. INTEGRATION
The following agency policies, planning documents and/or related reporting documents are integrated with the HUD's accomplishment of this goal:

- Strategic Sustainability Performance Plan
- Integrated Pest Management Plan
- Agency Chemical Inventory

b. EVALUATION MEASURES

- Compliance review of refrigerant management practices
- Review of inventory and regulatory reporting requirements
- Contract oversight measures for pest management

c. SUCCESSES

- Completed draft Integrated Pest Management Plan

d. CHALLENGES- None
e. LESSONS LEARNED – None

f. PLANNED ACTIONS

- Perform compliance review of refrigerant management practices
- Review chemical inventory to identify substitutes or eliminate unneeded chemicals

Goal 8: Energy Performance Contracts

Performance Contracting Goal
E.O. 13693 section 3(k) requires that agencies implement performance contracts for Federal buildings. E.O. 13693 section 3(k)(iii) also requires that agencies provide annual agency targets for performance contracting. Agency's commitment under the President's Performance Contracting Challenge is insert total commitment level in contracts awarded by the end of calendar year 2016. Agency's targets for the next two fiscal years are:

Progress and Actions
HUD did not commit to a performance contracting investment target. HUD awarded an Energy Savings Performance Contract (ESPC) for the HUD Headquarters (HQ) building just prior to the Presidents challenge. HUD HQ is a GSA Delegated Building and is the only building for which HUD has operation and maintenance responsibility. This project resulted in $33 million of energy efficiency improvements. All of HUD's other buildings are leased through GSA and are not candidates for HUD initiated ESPC work. HUD will work with GSA during the next reporting period to determine the feasibility of future ESPC work at the headquarters building.

Goal 9: Electronic Stewardship

Goal 9: Electronics Stewardship & Data Centers

Electronics Stewardship Goals
E.O. 13693 Section 3(l) requires that agencies promote electronics stewardship, including procurement preference for environmentally sustainable electronic products; establishing and implementing policies to enable power management, duplex printing, and other energy efficient or environmentally sustainable features on all eligible agency electronic products; and employing environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products.

Data Center Efficiency Goal
E.O. 13693 Section 3(a) states that agencies must improve data center efficiency at agency facilities, and requires that agencies establish a power usage effectiveness target in the range of 1.2-1.4 for new data centers and less than 1.5 for existing data centers.

Progress and Actions

- Duplex Printing " Duplex printing is enabled on all networked printers that are reducing paper consumption and energy usage.
- Power management - Automated power management is enabled for all computers and printers across the Enterprise. Automated power management provides remote management of power, ensuring less consumption when not needed and thus lower electricity consumption levels.
- HUD has met or exceeded the target for six of the nine Data Center optimization metrics and is currently working to meet the target value for the three remaining metrics that includes Power Usage Effectiveness.
- HUD's ability to attain the OMB established target value for the three remaining metrics will require HUD to further consolidate data center resources and migrate from contractor-owned, contractor operated data center to multi-tenant, shared data centers. This effort will be accomplished under the HUD Enterprise and Architecture Transition (HEAT) initiative that restructures infrastructure services.

Goal 10: Climate Change Resilience

Goal Description
E.O. 13514 and E.O. 13653 require each agency to evaluate agency climate change risks and vulnerabilities to identify and manage the effects of climate change on the agency's operations and mission in both the short and long term.

a. INTEGRATION
The following agency policies, planning documents and/or related reporting documents are integrated with HUD's accomplishment of this goal:

- Climate Change Adaptation Plan (this plan integrates various policies and planning documents related to the agency's mission such as: loan and grant policies or guides; disaster assistance/resilience policies; environmental assessment factors; emergency evacuation & relocation procedures for HUD-assisted housing; and various others)
- Environmental Justice Strategy
- Agency Emergency Response Procedures
- Agency Workforce Protocols

b. EVALUATION MEASURES

- Implementation of action items described in the agency Climate Change Adaptation Plan

c. SUCCESSES

- Through the Climate Council, an Assistant Secretary-level intra-agency working group, continues to execute the Department's Climate Change Adaptation Plan. To date, the Department has completed forty-nine percent of the actions in its plan.

d. CHALLENGES

- Limited familiarity with climate change impacts and potential adaptation measures at the office and division levels.
- Limited contracting resources available to fully execute several actions in a timely manner.
- Limited rulemaking capacity and competing Departmental and Administration priorities.
- Competing priorities at the grantee level combined with declining grant resources limit the ability of HUD program dollars to be used for adaptation.

e. LESSONS LEARNED

- The formation of a senior-level working group dealing exclusively with climate change preparedness and resilience has been instrumental in accomplishing the Department's goals.
- Alignment of the Climate Change Adaptation Plan with other agency strategic planning documents (e.g. Annual Performance Plan) helps focus resources and attention.
- Participation in interagency groups facilitates efficiencies and knowledge sharing to a point but can limit available bandwidth to implement the Agency Adaptation Plan.
- Alignment of the Agency Adaptation Plan with core Departmental programs is key to maximizing impact and longevity of the work.

f. PLANNED ACTIONS
The Climate Council (successor to the Resilience Council) will continue to play an advisory and coordinating role on all climate-related initiatives undertaken by the Department. Progress achieved under these and other resilience-related efforts are tracked through HUD's Annual Performance Plan

and Annual Performance Report, under Strategic Objective 4C. In FY2017, the Climate Council will focus on implementing the following remaining actions and identifying internal or external resources to implement those that have faced challenges.

1.03	Conduct Outreach with Mortgage Insurance and Guaranty Agencies to Facilitate Coordination of Consistent Disaster Assistance Policies and Update Ginnie Mae's Disaster Assistance Policy
1.04	Update Part 55 Floodplain Regulation to Require Higher Flood Elevation
1.05	Update Environmental Assessment Factors for 24 CFR Part 50 and Part 58 Reviews.
1.07	Update Building Standards to Incorporate Sustainability and Resilience Measures
1.08	Review and Improve PHA Insurance Policy Rules
1.09	Update Utility Expense Level, Utility Allowance, and Utility Surcharge Formulas
1.10	Update Section 203(k) Policies and Promote Program Use for Hazard Mitigation
1.11	Encourage Consolidated Plans to Incorporate Planning for Climate-Related Risk
2.01	Develop Toolkits and Training Materials for HUD Grantees
2.02	Expand CPD Maps to Include Data on Future Climate-Related Hazards
2.04	Ensure Public Housing Resident Inclusion in a Quality and Resilient Emergency Notification System
2.05	Develop Guidance on Building Design, Construction, and Retrofit for Sustainability and Resilience
3.4	Train Front-Line Employees on Disaster Response Assistance Resources and Protocols
3.5	Factor Future Projections of Risk into Field Office Staffing Decisions
4.1	Identify Vulnerable Physical Assets and Assess Impacts
4.2	Draft Research Report on Accessibility and Resilient Building Measures
4.3	Survey Residents in HUD-Assisted Properties
5.1	Draft Equitable and Responsible Principles for Potential Climate-Related Relocation

SECTION 4: PROGRESS ON ADMINISTRATION PRIORITIES

President's Performance Contracting Challenge:
HUD does not own any buildings and only has operational authority for its Headquarters, the Robert C. Weaver Building, which is a GSA owned facility. Recently HUD completed a large Energy Savings Performance Contract (ESPC) at this leased facility. Accordingly, HUD has not made any commitments toward President's Performance Contracting Challenge. The agency is currently studying the feasibility

of additional ESPC work at HUD Headquarters and has identified several potential Energy Conservation Measures (ECMs).

Electric and Zero Emission Vehicles:
HUD has established several goals for FY 17 and FY 18 regarding the integration of zero emission and plug-in hybrid vehicles (ZEV/PHEV) into the agency fleet. Below are HUD's priority targets:

- Participate in the U.S. Department of Energy (DOE) Workplace Charging Challenge and utilize the technical assistance offered by DOE.
- Conduct cost analysis for ZEV/PHEV acquisitions.
- Attain funding for the ZEV/PHEV vehicles by FY 18 funding year.

Climate Preparedness and Resilience:
HUD is deeply committed making its policies and programs more climate-resilient. Some examples of actions that HUD has taken to manage the effects of climate change on its mission, programs, and operations include:

- Engaging experts inside and outside of the Department to better understand the risks and impacts of climate change.
- Working with grantees to help reduce the vulnerability of local communities to climate change.
- Ensuring that the lives of vulnerable and disadvantaged populations are not only considered, but improved, as a result of these activities.
- Consulting with all levels of government (state, local, tribal, and territorial) to identify and remove policy, programmatic, and other barriers to resilient investments and respond to the needs of communities impacted by climate change.

Outlined below are some of HUD's priority actions for Climate Preparedness and Resilience during FY 17:

- Enter into a MOU with the Association of State Floodplain Managers to promote the Section 203k program for hazard mitigation.
- Review, through the Department's executive-level Climate Council, its existing building construction requirements with the goal of aligning program requirements with the most recent model building codes and standards for resilient construction.
- Release a resilience toolkit to help CDBG and HOME grantees address climate change in their jurisdictions.
- Publish a Final Rule incorporating natural hazards (including those influenced by climate change) into the Consolidated Plan.

Other Administration Priorities

Due to both the nature of HUD's work and the size of the agency, some administration priorities have a varying degree of applicability. For example, the agency does very little procurement in product or service areas related to sustainable acquisition, so HUD's targets for biobased purchasing are low relative to other agencies. Other targets, such as those for sustainable buildings and performance contracts, are not applicable since HUD does not own any buildings. HUD's progress on Administration Priorities are outlined in the chart below.

ADMINISTRATION PRIORITIES	HUD
Targets	
2025 Sustainable Buildings (% buildings)	N/A
2025 Sustainable Buildings (% square feet)	N/A
2025 Net Zero (% buildings)	N/A
FY17 Biobased (contracts)	3
FY17 Biobased (dollars in products)	6.1M
FY17 Performance Contracts (Millions)	N/A
FY18 Performance Contracts (Millions)	N/A

Size & Scope of Agency Operations

Agency Size and Scope	FY 2014	FY 2015
Total Number of Employees as Reported in the President's Budget	8529	8235
Total Acres of Land Managed	0	0
Total Number of Buildings Owned	0	0
Total Number of Buildings Leased (GSA and Non-GSA Lease)	102	102
Total Building Gross Square Feet (GSF)	3,864,573	3,897,593
Operates in Number of Locations Throughout U.S.	71	70
Operates in Number of Locations Outside of U.S.	0	0
Total Number of Fleet Vehicles Owned	0	0
Total Number of Fleet Vehicles Leased	165	132
Total Number of Exempted-Fleet Vehicles (Tactical, Law Enforcement, Emergency, Etc.)	204	213
Total Amount Contracts Awarded as Reported in FPDS ($Millions)	1206	1166

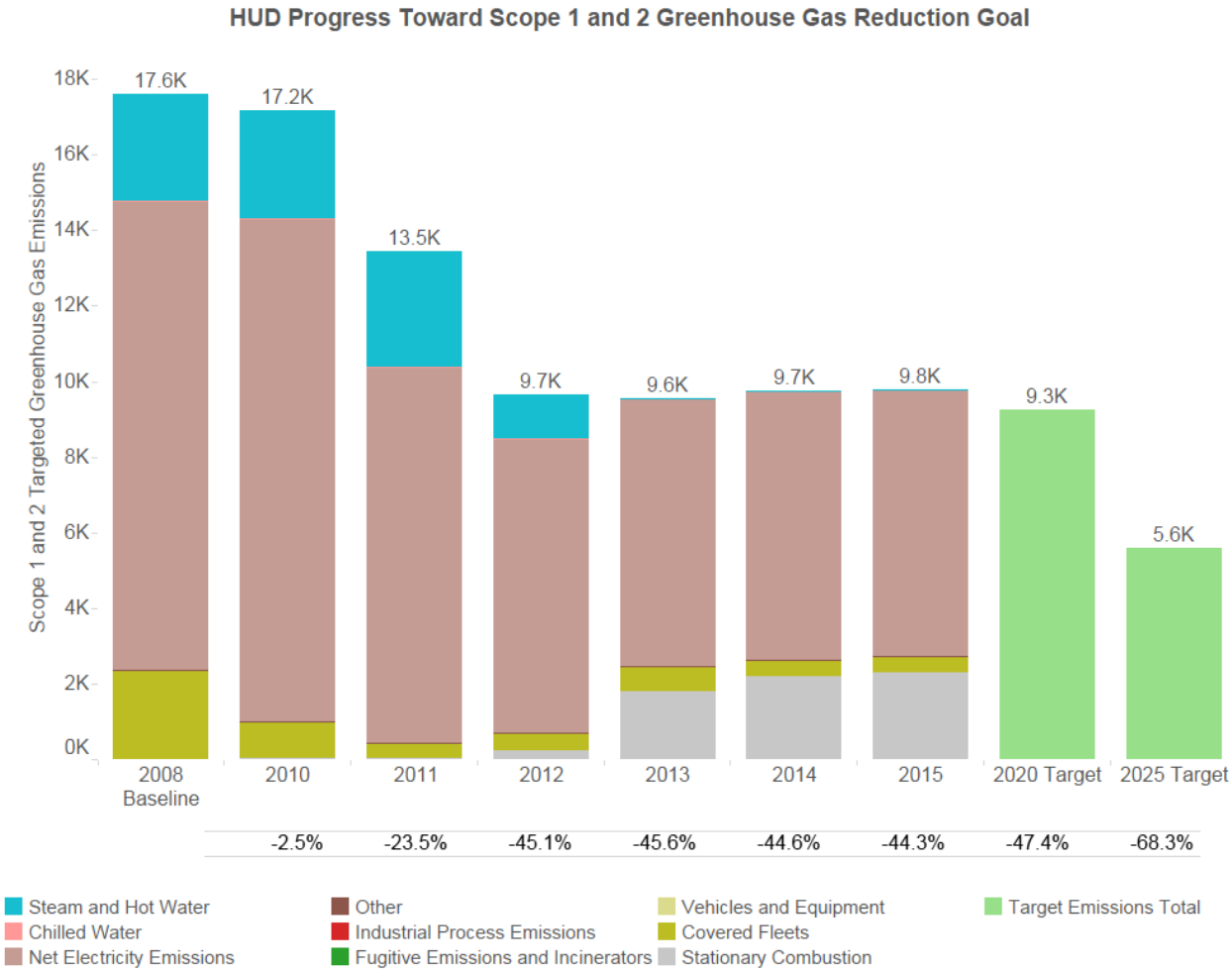
Agency Progress and Strategies to Meet Federal Sustainability Goals

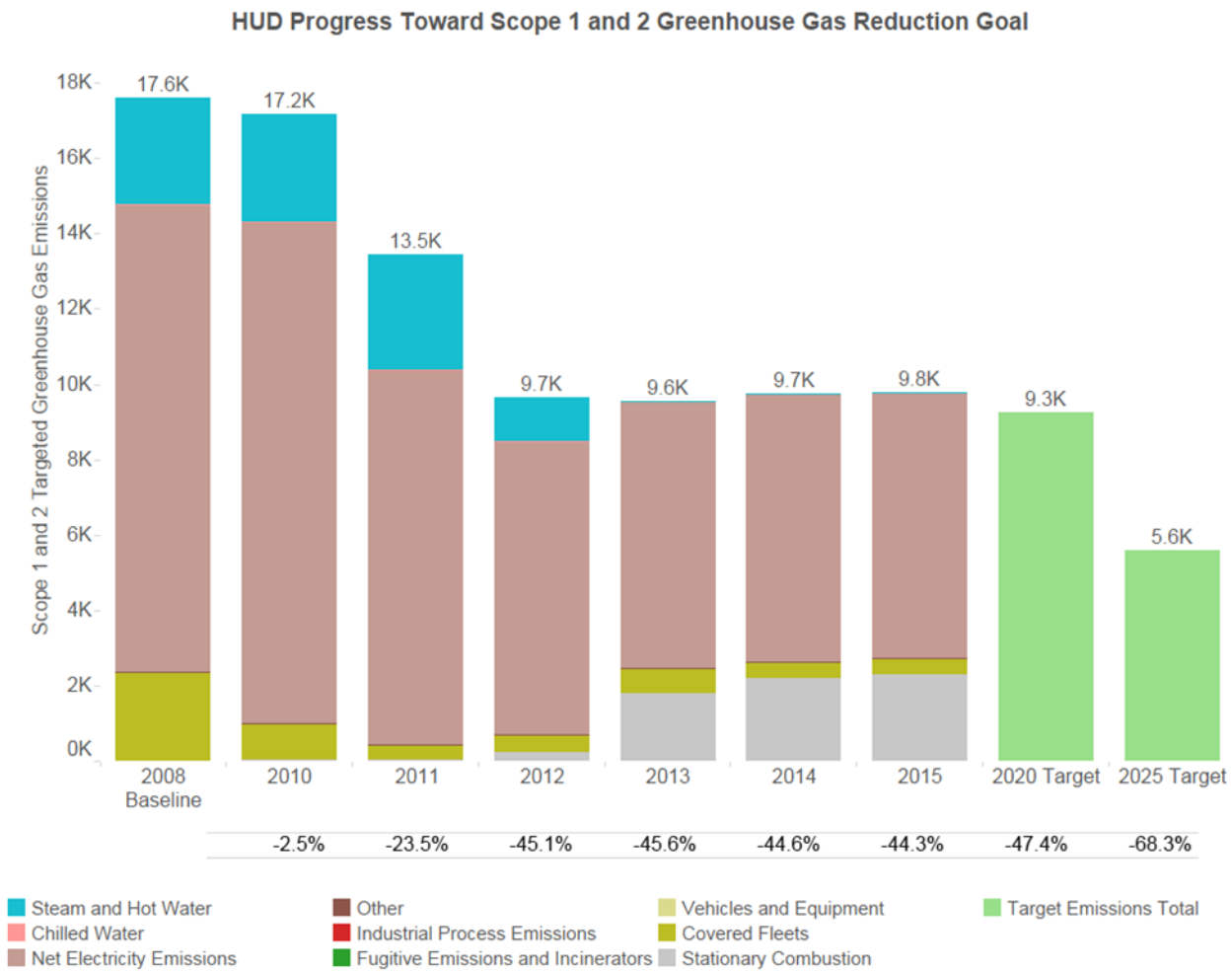
This section provides an overview of progress through FY 2015 on sustainability goals contained in Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, and agency strategies to meet the new and updated goals established by Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*.

Goal 1: Greenhouse Gas (GHG) Reduction

Scope 1 & 2 GHG Reduction Goal

E.O. 13693 requires each agency to establish a Scope 1 & 2 GHG emissions reduction target to be achieved by FY 2025 compared to a 2008 baseline. HUD's 2025 Scope 1 & 2 GHG reduction target is 68.3%.





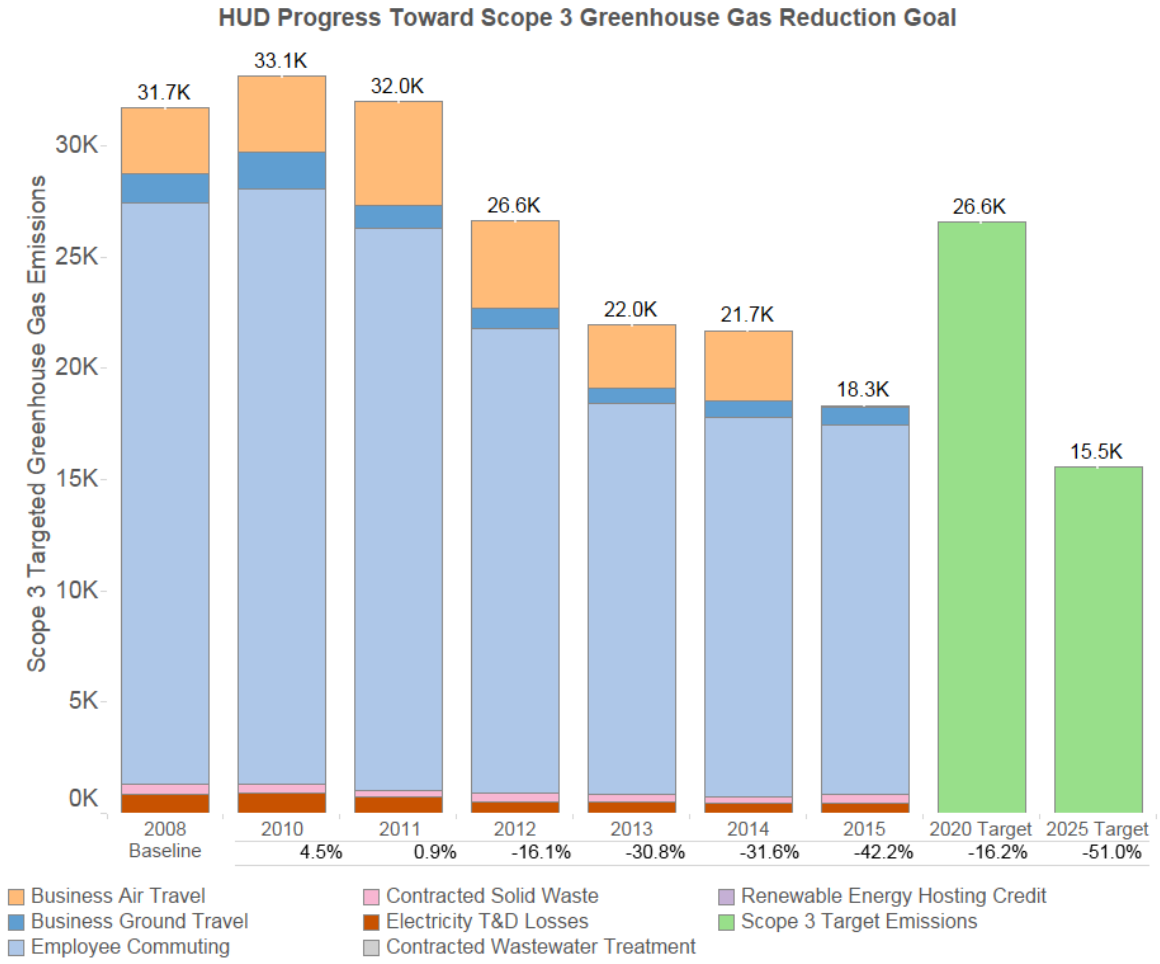
Scope 1 & 2 GHG Reduction Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Use the Federal Energy Management Program (FEMP) GHG emission report to identify/target high emission categories and implement specific actions to address high emission areas identified.	No	This is not considered a priority strategy because HUD only reports emissions for one building which recently underwent major energy improvements and retrofits.	
Identify and support management practices or training programs that encourage employee engagement in addressing GHG reduction.	Yes	Provide training to building operations staff and perform awareness campaigns.	1) Provide sustainability training to at least 75% of building operations staff. 2) Implement an energy and water conservation awareness campaign (March 2017).

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Determine unsuccessful programs or measures to be discontinued to better allocate agency resources.	No	The size of HUD's portfolio prevents this from being a priority strategy for the direct emissions category.	
Given agency performance to date, determine whether current agency GHG target should be revised to a more aggressive/ambitious target.	No	HUD considered past performance when developing GHG targets and considers its current goals to be aggressive and attainable.	
Employ operations and management (O&M) best practices for emission generating and energy consuming equipment.	Yes	Operation and Maintenance Best Practices- During the upcoming reporting period HUD will be soliciting a new O&M contract and will need to incorporate new contract language for energy management and contract coordination.	1) Make contract changes as necessary to ensure proper coordination between contractors. 2) Ensure contract statement of work requires best practices for the operation emission generating and energy intensive equipment. (October 2016)
Identify additional sources of data or analysis with the potential to support GHG reduction goals.	Yes	HUD will use its recently installed Energy Management Control System (EMCS) to perform continual analysis & generate trend data for the HQ Building.	1) Generate trend data and reports utilizing new O&M contractor (February 2017)

Scope 3 GHG Reduction Goal

E.O. 13693 requires each agency to establish a Scope 3 GHG emission reduction target to be achieved by FY 2025 compared to a 2008 baseline. HUD’s 2025 Scope 3 GHG reduction target is 51%.



Scope 3 GHG Reduction Strategies

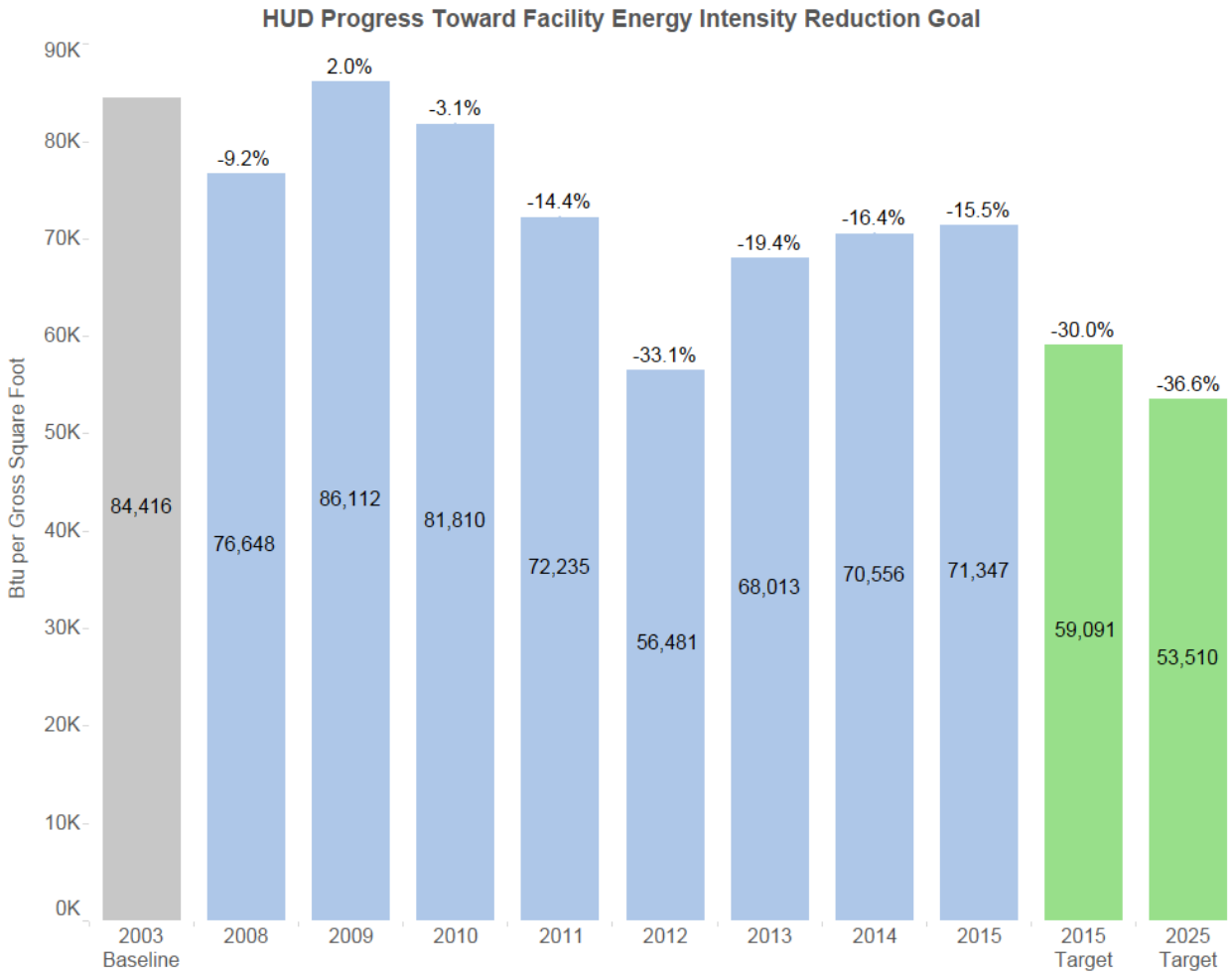
Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Reduce employee business ground travel.	Yes	Promote minimizing business travel and the use of virtual teleconference (VTC).	HUD did not successfully implement this strategy during the previous reporting period. Actions for this period: Develop agency policy signed by Chief Sustainability Officer (CSO) by 12/31/16.
Reduce employee business air travel.	No	This strategy will be implemented as part of the 2017 Sustainability Plan.	
Develop and deploy an employee commuter emissions reduction plan.	No	This strategy will be implemented as part of the 2017 Sustainability Plan.	

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Use an employee commuting survey to identify opportunities and strategies for reducing commuter emissions.	Yes	Review commuter surveys to identify trends or opportunities.	1) Perform survey (December 2016) 2) Review and identify potential strategies (February 2017).
Increase & track number of employees eligible for telework and/or the total number of days teleworked.	Yes	HUD Climate Change Adaption Plan- Action 3.1- Improve Operational Readiness of HUD Field Staff.	Increase the number of approved telework agreements in place.
Develop and implement a program to support alternative/zero emissions commuting methods and provide necessary infrastructure.	Yes	Provide subsidies for Capital Bikeshare memberships.	Continue the current bikeshare subsidies and work to renew the program for FY 2017.
Establish policies and programs to facilitate workplace charging for employee electric vehicles.	Yes	Develop agency policy on workplace charging	Establish draft policy by December 2016
Include requirements for building lessor disclosure of carbon emission or energy consumption data and report Scope 3 GHG emissions for leases over 10,000 rentable square feet.	Yes	Coordinate with HUD Office of Field Administrative Services to ensure requirements are added to new leases.	Collect emissions data for any new leases meeting this criteria by November 2016

Goal 2: Sustainable Buildings

Building Energy Conservation Goal

The Energy Independence and Security Act of 2007 (EISA) requires each agency to reduce energy intensity 30% by FY 2015 as compared to FY 2003 baseline. Section 3(a) of E.O. 13693 requires agencies to promote building energy conservation, efficiency, and management and reduce building energy intensity by 2.5% annually through the end of FY 2025, relative to a FY 2015 baseline and taking into account agency progress to date, except where revised pursuant to Section 9(f) of E.O. 13693.



Building Energy Conservation Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Make energy efficiency investments in agency buildings.	No	HUD does not have any planned direct investments for the upcoming period, but is studying the feasibility of additional ESPC work.	
Use remote building energy performance assessment auditing technology	Yes	HUD has installed both Energy Management Control System (EMCS) software and advanced metering at the Headquarters building capable of remote assessment and trending	1) Generate trend data and reports utilizing new O&M contractor (February 2017)
Participate in demand management programs.	No		
Incorporate Green Button data access system into reporting, data analytics, and automation processes.	No	Green button data access is already in use.	
Redesign interior space to reduce energy use through daylighting, space optimization, and sensors and control systems.	No	This is not a priority as HUD only has operational control for one building which it does not own.	Although this is not a high priority for the subject goal, HUD has reworked its space policies to incorporate open space concept renovations that will utilize daylight and optimize space use.
Identify opportunities to transition test-bed technologies to achieve energy reduction goals.	Yes	HUD will continuously evaluated test-bed technology for potential agency use	Work with boiler maintenance provider to determine the feasibility of a Non-Chemical Water Treatment (Catalyst-based) for the HUD Headquarters boiler system. (This objective was not completed during the previous reporting period- New Target Date- December 2016)
Follow city energy performance benchmarking and reporting requirements.	Yes	Use EnergyStar Portfolio Manager to meet Washington DC (DDOE) benchmarking requirements.	Perform benchmarking for DDOE by 4/1/17.
Install and monitor energy meters and sub-meters.	No	All utilities are currently metered and monitored.	

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Collect and utilize building and facility energy use data to improve building energy management and performance.	Yes	HUD will utilize its new EMCS and Portfolio Manager to analyze and improve building performance.	Perform analysis of FY17 data by January 2017.
Ensure that monthly performance data is entered into the EPA ENERGY STAR Portfolio Manager.	Yes	Ensure FY16 data is input to Portfolio Manager.	1) Perform monitoring to ensure data is input, and correct NLT November 2016

Building Efficiency, Performance, and Management Goal

Section 3(h) of E.O. 13693 states that agencies will improve building efficiency, performance, and management and requires that agencies identify a percentage of the agency's existing buildings above 5,000 gross square feet intended to be energy, waste, or water net-zero buildings by FY 2025 and implementing actions that will allow those buildings to meet that target. HUD's 2025 target is N/A% (See note below).

Guiding Principles for Sustainable Federal Buildings

Section 3(h) of E.O. 13693 also states that agencies will identify a percentage, by number or total GSF, of existing buildings above 5,000 GSF that will comply with the *Guiding Principles for Sustainable Federal Buildings (Guiding Principles)* by FY 2025.

HUD's FY 2025 target is N/A% (See note below).

Note: HUD does not own any buildings and does not construct new federal buildings, nor does the agency report in FRPP. The agency does not make site selection decisions. HUD has requested that GSA incorporate sustainability guiding principles into all leases entered into on behalf of HUD.

Sustainable Buildings Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Include climate resilient design and management into the operation, repair, and renovation of existing agency buildings and the design of new buildings.	No	This is not a high priority strategy since HUD does not own any buildings, however HUD will incorporate this strategy for work performed at HUD Headquarters which is the only building that the agency has operational authority over.	

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
In planning new facilities or leases, include cost-effective strategies to optimize sustainable space utilization and consideration of existing community transportation planning and infrastructure, including access to public transit.	No	HUD will continue to work with GSA to ensure that transportation infrastructure and access are considered in lease selection.	
Ensure all new construction of Federal buildings greater than 5,000 GSF that enters the planning process be designed to achieve energy net-zero and, where feasible, water or waste net-zero by FY 2030.	No	HUD does not construct new buildings and has no plans to do so.	
Include criteria for energy efficiency as a performance specification or source selection evaluation factor in all new agency lease solicitations over 10,000 rentable square feet.	Yes	Develop agency policy that emphasizes energy efficiency as a high priority selection factor.	Coordinate with the Office of Field Administration by December 2016
Incorporate green building specifications into all new construction, modernization, and major renovation projects.	NA		
Implement space utilization and optimization practices and policies.	Yes	HUD will continue to work with GSA to ensure that optimization practices and policies are implemented.	HUD does not own any real property and its spaces are largely GSA leases. Accordingly, HUD will coordinate with GSA to identify leased spaces that are eligible for consolidation. At Headquarters, the only building that HUD operates, HUD will incorporate open space concept renovations that will utilize daylight and optimize space use.
Implement programs on occupant health and well-being in accordance with the *Guiding Principles*.	Yes	Determine what health and wellness programs are in place for field locations.	Conduct research through the Office of Field Administration to determine if programs exist (February 2017)

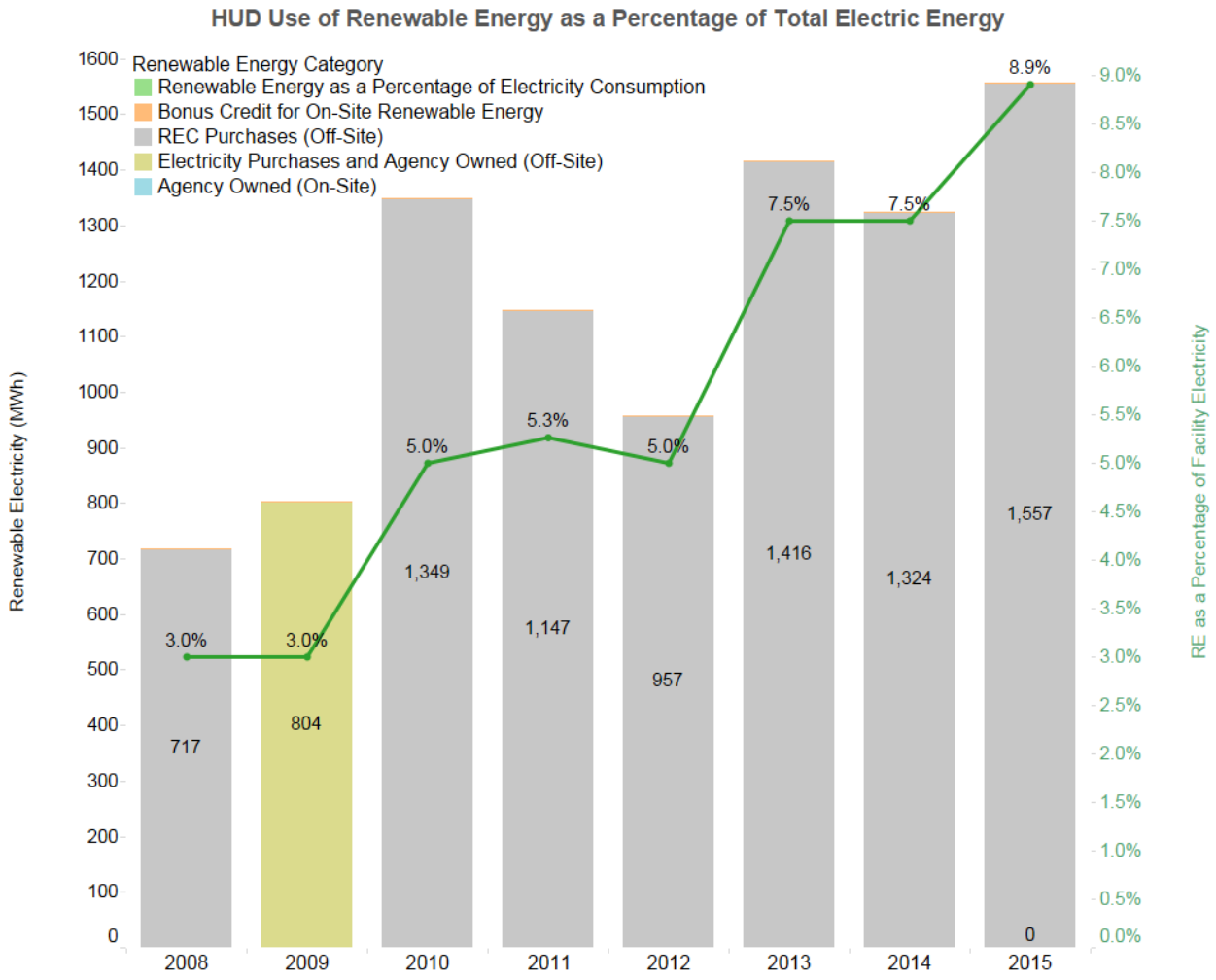
Goal 3: Clean & Renewable Energy

Clean Energy Goal

E.O. 13693 Section 3(b) requires that, at a minimum, the percentage of an agency's total electric and thermal energy accounted for by renewable and alternative energy shall be not less than: 10% in FY 2016-17; 13% in FY 2018-19; 16% in FY 2020-21; 20% in FY 2022-23; and 25% by FY 2025.

Renewable Electric Energy Goal

E.O. 13693 Section 3(c) requires that renewable energy account for not less than 10% of total electric energy consumed by an agency in FY 2016-17; 15% in FY 2018-19; 20% in FY 2020-21; 25% in FY 2022-23; and 30% by 2025.



Clean and Renewable Energy Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Install agency-funded renewable on-site and retain corresponding renewable energy certificates (RECs).	NA	Note #1: HUD is already purchasing the required level of RECs to meet its goals through a GSA regional power procurement aggregate. HUD has also begun purchasing additional renewable energy and carbon offsets for the purpose of achieving LEED certification. In addition, HUD owns no buildings or sites where it would be feasible to install onsite renewables.	
Contract for the purchase of energy that includes installation of renewable energy on or off-site and retain RECs or obtain replacement RECs.	NA	**See Note #1 above.**	
Purchase electricity and corresponding RECs or obtain equal value replacement RECs.	No	**See Note #1 above.**	
Purchase RECs to supplement installations and purchases of renewable energy, when needed to achieve renewable goals.	No	HUD is already purchasing the required level of RECs to meet its goals through a GSA regional power procurement aggregate.	
Install on-site thermal renewable energy and retain corresponding renewable attributes or obtain equal value replacement RECs.	NA	**Note #2:** HUD will revisit the possibility of adding solar to the HUD Headquarters building. This was previously not feasible due to building roof load/bearing capacity.	
Install on-site combined heat and power processes.	NA	See Note #1 above.	
Identify opportunities to install on-site fuel cell energy systems.	NA	See Note #1 above.	
Identify opportunities to utilize energy that includes the active capture and storage of carbon dioxide emissions associated with energy generation.	NA	See Note #1 above.	
Identify and analyze opportunities to install or contract for energy installed on current or formerly contaminated lands, landfills, and mine sites.	NA	See Note #1 above.	
Identify opportunities to utilize energy from small modular nuclear reactor technologies.	NA	See Note #1 above.	

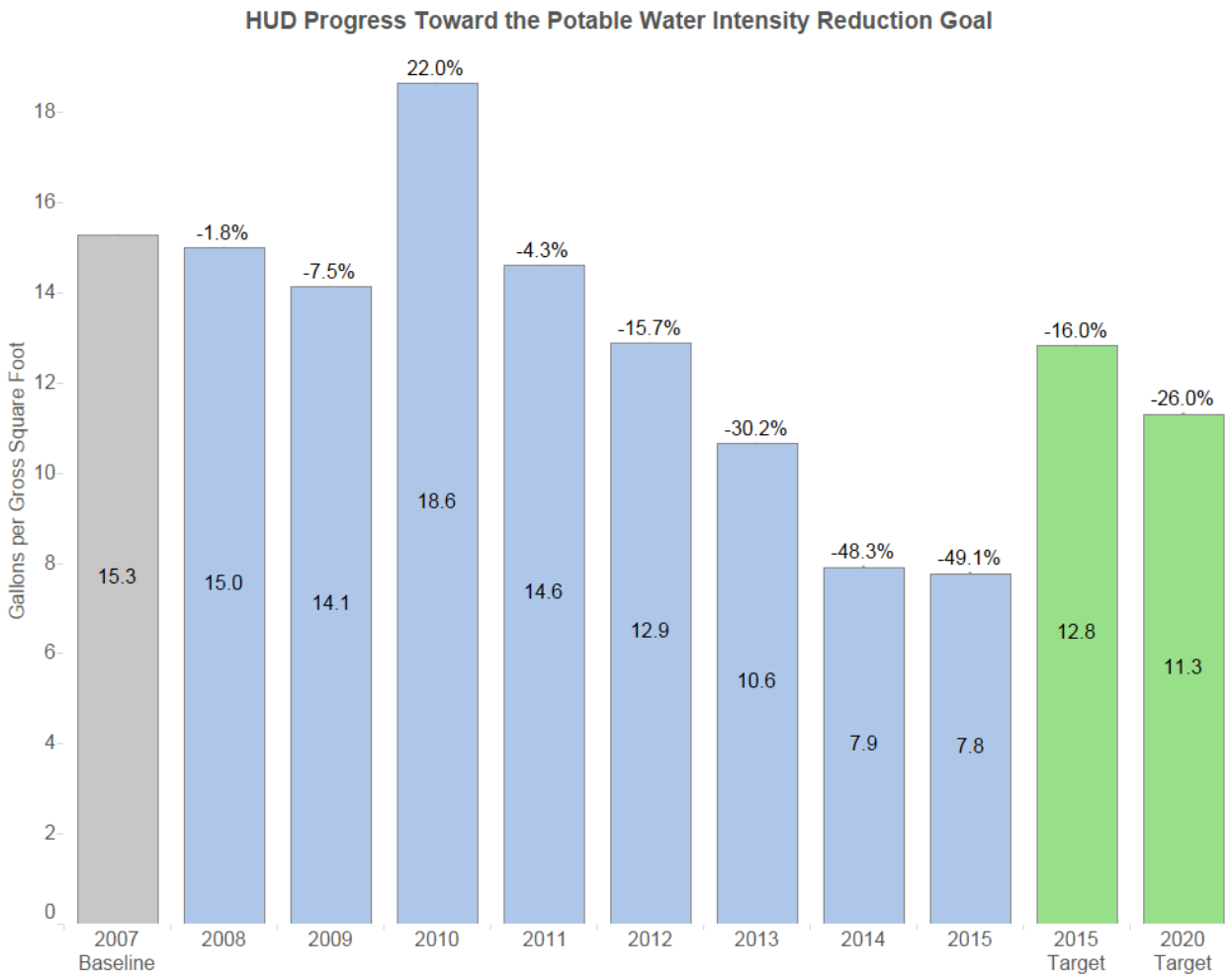
Goal 4: Water Use Efficiency & Management

Potable Water Consumption Intensity Goal

E.O. 13693 Section 3(f) states that agencies must improve water use efficiency and management, including stormwater management, and requires agencies to reduce potable water consumption intensity, measured in gallons per square foot, by 2% annually through FY 2025 relative to an FY 2007 baseline. A 36% reduction is required by FY 2025.

Industrial, Landscaping and Agricultural (ILA) Water Goal

E.O. 13693 section 3(f) also requires that agencies reduce ILA water consumption, measured in gallons, by 2% annually through FY 2025 relative to a FY 2010 baseline.



Water Use Efficiency & Management Strategies

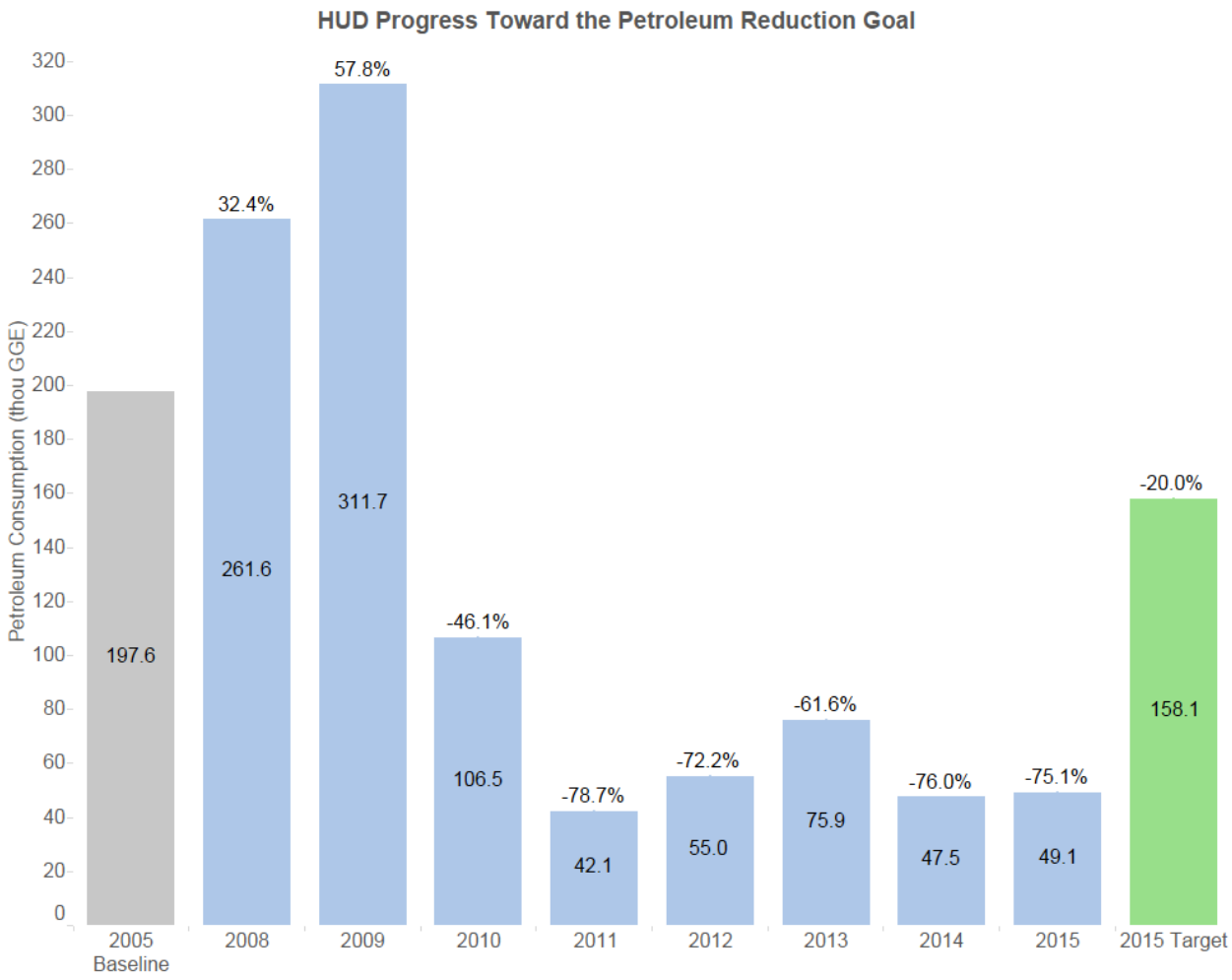
Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Install green infrastructure features to assist with storm and wastewater management.	No	**Note #1:** HUD has very little opportunity for this type of strategy with only one building under its operational control. Once HUD's courtyard has been repaired the Office of Facilities will explore the feasibility of adding rain water recapture. FY18 goal.	
Install and monitor water meters and utilize data to advance water conservation and management.	No	Water meters are installed for potable use, landscape, and cooling tower make up water.	Monitor water meters to identify opportunities for additional water conservation.
Install high efficiency technologies, e.g. WaterSense fixtures.	No	**Note #2:** Agency completed retrofit of bathroom fixtures in FY 2012. No new retrofit activities for water reduction are scheduled during the next fiscal year.	HUD will be including water conservation as part of the current study for additional ESPC work at HUD HQ.
Prepare and implement a water asset management plan to maintain desired level of service at lowest life cycle cost.	No		
Minimize outdoor water use and use alternative water sources as much as possible.	Yes	Set landscape irrigation system to minimum acceptable level and ensure rain delay functions are used appropriately.	Initiate O&M contractor performance monitoring to ensure the irrigation system is operated appropriately.
Design and deploy water closed-loop, capture, recharge, and/or reclamation systems.	No	**See Note #1 above.**	
Install advanced meters to measure and monitor potable and ILA water use.	No	Water at HUD's only subject building is already metered.	
Develop and implement programs to educate employees about methods to minimize water use.	Yes	Continue to perform employee awareness campaigns.	Distribute water conservation awareness materials by December 2016.
Assess the interconnections and dependencies of energy and water on agency operations, particularly climate change's effects on water which may impact energy use.	No	**See Note #1 above.**	
Consistent with State law, maximize use of grey-water and water reuse systems that reduce potable and ILA water consumption.	No	**See Note #1 above.**	

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Consistent with State law, identify opportunities for aquifer storage and recovery to ensure consistent water supply availability.	No	**See Note #1 above.**	
Ensure that planned energy efficiency improvements consider associated opportunities for water conservation.	Yes	HUD is currently working on a feasibility study for additional ESPC work that will consider water conservation opportunities.	Perform preliminary ESPC analysis by October 2016.
Where appropriate, identify and implement regional and local drought management and preparedness strategies that reduce agency water consumption	No	This strategy is not a priority since HUD does not own or manage any properties other than its Headquarters.	

Goal 5: Fleet Management

Fleet Petroleum Use Reduction Goal

E.O. 13514 and the Energy Independence and Security Act of 2007 (EISA) required that by FY 2015 agencies reduce fleet petroleum use by 20% compared to a FY 2005 baseline.



Fleet Alternative Fuel Consumption Goal

Agencies should have exceeded an alternative fuel use that is at least 5% of total fuel use. In addition, E.O. 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, required that agencies increase total alternative fuel consumption by 10% annually from the prior year starting in FY 2005. By FY 2015, agencies must have increased alternative fuel use by 159.4%, relative to FY 2005.

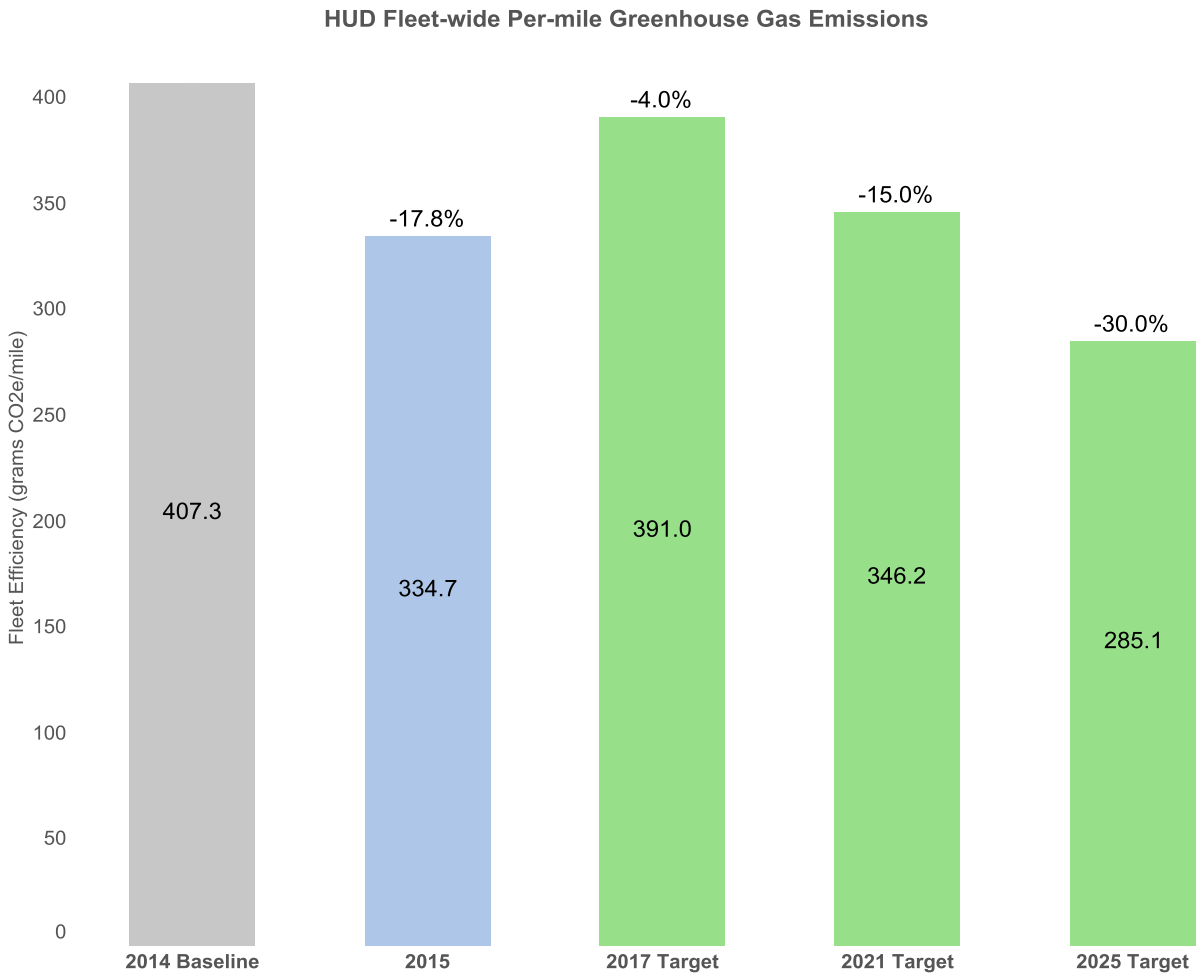
In FY 2015, HUD's use of alternative fuel equaled 2.157% of total fuel use. HUD has increased its alternative fuel use by 94% since FY 2005.

HUD is making great strides and efforts to meet the mandates of reducing petroleum consumption, GHG emissions, increasing alternative fuel, and right-sizing fleet. These goals are being met by continuing a campaign to provide awareness on alternative fuel that includes an internal fleet memo called HUD Highlights, implementing mandatory defensive driver's training and fuel economy training, working with outside organizations, such as FEMP, to build electrical charging stations, and utilizing Fleet applications such as alternative fuel station locator, and FLEET DASH. HUD is confident that through these efforts we will be able to meet the goals of the fleet mandates.

Fleet Per-Mile Greenhouse Gas (GHG) Emissions Goal

E.O. 13693 Section 3(g) states that agencies with a fleet of at least 20 motor vehicles will improve fleet and vehicle efficiency and management. E.O. 13693 section 3(g)(ii) requires agencies to reduce fleet-wide per-mile GHG emissions from agency fleet vehicles relative to a FY 2014 baseline and sets new goals for percentage reductions: not less than 4% by FY 2017; not less than 15 % by FY 2020; and not less than 30% by FY 2025.

E.O. 13693 Section 3(g)(i) requires that agencies determine the optimum fleet inventory, emphasizing eliminating unnecessary or non-essential vehicles. The Fleet Management Plan and Vehicle Allocation Methodology (VAM) Report are included as appendices to this plan.



Fleet Management Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Collect and utilize agency fleet operational data through deployment of vehicle telematics.	Yes	HUD is currently looking to use GSA BPA with AT&T. We are now in the process of getting approval from the Union for the telematics system features.	Target goal is to get funding approval for this upcoming fiscal year, by August, for the current new vehicles.
Ensure that agency annual asset-level fleet data is properly and accurately accounted for in a formal Fleet Management Information System as well as submitted to the Federal Automotive Statistical Tool reporting database, the Federal Motor Vehicle Registration System, and the Fleet Sustainability Dashboard (FLEETDASH) system.	Yes	This task has already been completed. HUD is now uploaded into the FLEETDASHBOARD.HUD uses GSA Drive Thru system, as us for our FMIS. We are currently looking into using the GSA FedFMS, for our 4 commercially leased vehicles.	For our commercially leased vehicles our goal is to by October 2016 to have an approved FMIS system, that will capture the required asset level data.
Increase acquisitions of zero emission and plug-in hybrid vehicles.	Yes	Identify the areas, and the program offices where the ZEV or PHEV will be most utilized. Once this has been identified, we will then allocate for funding for these vehicles, if advantageous.	1)Identify the areas by July 2016. 2) Meet with the program offices who utilizes the vehicles to confirm that this would be advantageous, by August 2016. 3) Conduct a cost analysis to see if EV would be advantageous. 4) Procure funding for the EV vehicles by FY 18 funding year.
Issue agency policy and a plan to install appropriate charging or refueling infrastructure for zero emission or plug-in hybrid vehicles and opportunities for ancillary services to support vehicle-to-grid technology.	Yes	We are currently working with FEMP Tiger team to get an infrastructure launched.	1) Target infrastructure identified by July 2016 2) Meet with FEMP by end of July. 3)Put in the FY 18 budget the funding for approval for the infrastructure.
Optimize and right-size fleet composition, by reducing vehicle size, eliminating underutilized vehicles, and acquiring and locating vehicles to match local fuel infrastructure.	Yes	VAM has been conducted on the agency fleet. The results of this study identified vehicles/areas where alternative methods could be utilized as well as potential areas where electric vehicles can be placed.	1) Meet with the program offices who utilizes the vehicles to confirm that this would be advantageous, August 2016. 2) Conduct a cost analysis to see if EV would be advantageous. 3) Procure funding for the EV vehicles by FY 18 funding year.

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Increase utilization of alternative fuel in dual-fuel vehicles.	Yes	(1) Increase utilization of E85 in flex-fuel vehicles; (2) locate dual-fuel vehicles where they have access to alternative fuel;	(1) Show a 20% increase in E-85 use over FY 2016 by March 2017. (2) Locate 45% of dual fuel vehicles within 5 miles of E-85 station by April 2017.
Use a FMIS to track real-time fuel consumption throughout the year for agency-owned, GSA-leased, and commercially-leased vehicles.	Yes	We are currently doing this with our GSA leased vehicles. We are working with the Secretary's office to have in place a system that will capture this.	Our objective is to have by October to have a system in place that will capture this data for the commercially leased vehicles.
Implement vehicle idle mitigation technologies.	Yes	We are currently looking to use GSA BPA with AT&T. We are now in the process of getting approval from the Union for the telematics system features.	Target goal is to get funding approval by January 2017 for fiscal year 2018, for the current new vehicles.
Minimize use of law enforcement exemptions by implementing GSA Bulletin FMR B-33, *Motor Vehicle Management, Alternative Fuel Vehicle Guidance for Law Enforcement and Emergency Vehicle Fleets.*	No	To ensure that vehicles that are identified as law enforcement are properly identified, we have OIG submit a yearly letter justifying the vehicles as law enforcement.	N/A
Where State vehicle or fleet technology or fueling infrastructure policies are in place, meet minimum requirements.	Yes	We are currently working with FEMP Tiger team to get an infrastructure launched. Once we get approval for the infrastructure we will then create a policy.	1) Target infrastructure identified by July 2016 2) Meet with FEMP by end of July. 3) Have policy for infrastructure completed by March 2017.
Establish policy/plan to reduce miles traveled, e.g. through vehicle sharing, improving routing with telematics, eliminating trips, improving scheduling, and using shuttles, etc.	Yes	Meet with stakeholders who would be affected by this policy to discuss a viable solution.	1)Meet with stakeholders July 2016. 2) Have draft policy by mid November 2016. 3) Policy finalized by February 2017.

Goal 6: Sustainable Acquisition

Sustainable Acquisition Goal

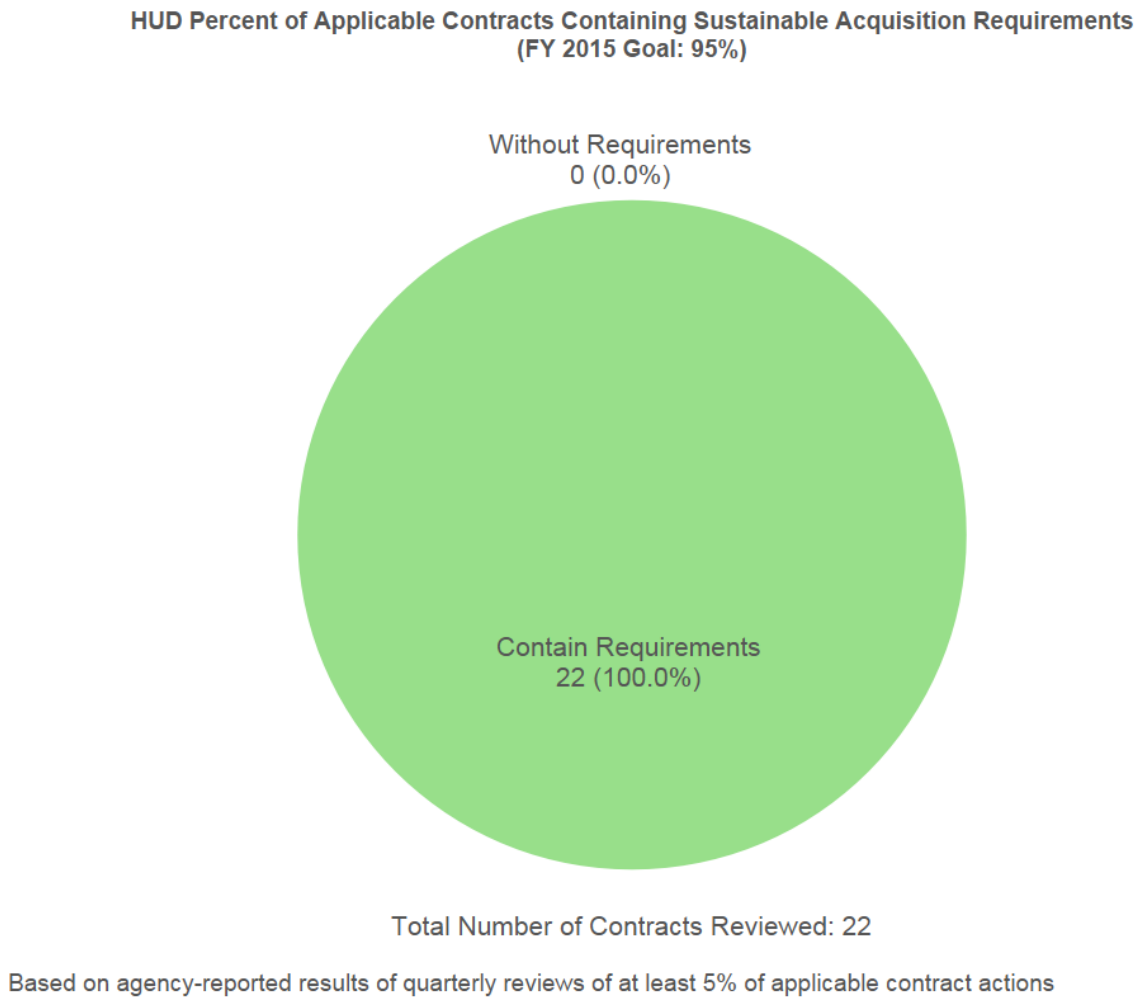
E.O. 13693 section 3(i) requires agencies to promote sustainable acquisition by ensuring that environmental performance and sustainability factors are considered to the maximum extent practicable for all applicable procurements in the planning, award and execution phases of acquisition.

Biobased Purchasing Targets

The Agricultural Act of 2014 requires that agencies establish a targeted biobased-only procurement requirement. E.O. 13693 section 3(iv) requires agencies to establish an annual target for increasing the number of contracts to be awarded with BioPreferred and biobased criteria and the dollar value of BioPreferred and biobased products to be delivered and reported under those contracts in the following fiscal year.

For FY 2017, HUD has established a target of _3_ contracts and $6.1 million_ in products to be delivered.

***Note:** As indicated by the HUD Sustainability Acquisition Report, the agency does very little procurement in product or service areas related to sustainable acquisition. HUD will continue to include energy efficient, biobased and other FAR sustainability clauses in all new contract actions as appropriate. Additionally, HUD will continue to monitor for compliance in the quarterly audits and ensure compliance with contractor reporting requirements for biobased purchases.



Sustainable Acquisition Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Establish and implement policies to meet statutory mandates requiring purchasing preference for recycled content products, ENERGY STAR qualified and FEMP-designated products, and Biopreferred and biobased products designated by USDA.	No	HUD has already addressed this requirement in the recommended strategy to include energy efficient, biobased and other FAR sustainability clauses in all new contract actions as appropriate.	
Establish and implement policies to purchase sustainable products and services identified by EPA programs, including SNAP, WaterSense, Safer Choice, and Smart Way.	No	HUD does not expect significant procurement of products in this category.	

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Establish and implement policies to purchase environmentally preferable products and services that meet or exceed specifications, standards, or labels recommended by EPA.	Yes	HUD has already addressed this requirement in the recommended strategy to include energy efficient, biobased and other FAR sustainability clauses in all new contract actions as appropriate.	OCPO's Risk Management and Compliance Unit will perform annual reviews to ensure appropriate clauses are contained in contracts requiring biobased and sustainable products.
Use Category Management Initiatives and government-wide acquisition vehicles that already include sustainable acquisition criteria.	Yes	HUD has mandated all office supplies be purchases using FSSI OS3 contracts which are Biobased and green compliant	
Ensure contractors submit timely annual reports of their BioPreferred and biobased purchases.	Yes	HUD issued guidance to Acquisition staff in 20-14 informing them of their responsibility for ensuring contractors are aware of and comply with the final rule for Biobased Reporting Requirements and to submit annual reports of their biobased purchases by October 31 of each year at www.sam.gov	HUD will review compliance when conducting quarterly compliance reviews.
Reduce copier and printing paper use and acquiring uncoated printing and writing paper containing at least 30 percent postconsumer recycled content or higher.	No	HUD is already purchasing paper with 30% recycled content	
Identify and implement corrective actions to address barriers to increasing sustainable acquisitions.	No	OCPO has not identified any barriers at this time	
Improve quality of data and tracking of sustainable acquisition through the Federal Procurement Data System (FPDS).	No	HUD utilizes FPDS to track sustainable acquisitions and to identify actions to be audited quarterly.	
Incorporate compliance with contract sustainability requirements into procedures for monitoring contractor past performance and report on contractor compliance in performance reviews.	Yes	HUD conducts quarterly compliance reviews. HUD will also monitor contracts to ensure that contractors are submitting annual reports of biobased purchases by Oct 31 of each year at www.sam.gov	
Review and update agency specifications to include and encourage products that meet sustainable acquisition criteria.	Yes	HUD has already addressed this requirement in the recommended strategy to include energy efficient, biobased and other FAR sustainability clauses in all new contract actions as appropriate.	OCPO has added environmental consideration to the solicitation review checklist.

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Identify opportunities to reduce supply chain emissions and incorporate criteria or contractor requirements into procurements.	No	HUD has already addressed this requirement in the recommended strategy to include energy efficient, biobased and other FAR sustainability clauses in all new contract actions as appropriate.	

Goal 7: Pollution Prevention & Waste Reduction

Pollution Prevention & Waste Reduction Goal

E.O. 13693 section 3(j) requires that Federal agencies advance waste prevention and pollution prevention and to annually divert at least 50% of non-hazardous construction and demolition debris. Section 3(j)(ii) further requires agencies to divert at least 50% of non-hazardous solid waste, including food and compostable material, and to pursue opportunities for net-zero waste or additional diversion.

Reporting on progress toward the waste diversion goal will begin with annual data for FY 2016.

Pollution Prevention & Waste Reduction Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Report in accordance with the requirements of sections 301 through 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C 11001-11023).	NA	HUD's only building does not house any toxic chemicals, perform manufacturing, nor does it meet TRI requirements.	
Reduce or minimize the quantity of toxic and hazardous chemicals acquired, used, or disposed of, particularly where such reduction will assist the agency in pursuing agency greenhouse gas reduction targets.	NA	**Note#1:** The nature of HUD's mission is such that toxic and hazardous chemicals are infrequently acquired, used, or disposed of.	
Eliminate, reduce, or recover refrigerants and other fugitive emissions.	Yes	Review and evaluate refrigerant monitoring program	Continue to review the refrigerant monitoring program and implement corrective actions no later than 12/31 annually.
Reduce waste generation through elimination, source reduction, and recycling.	Yes	HUD currently maintains recycling containers throughout its only subject building. This includes comingle recycling containers.	Perform feasibility study for adding waste sorting and diversion requirements to the current custodial contract. (March 2017).

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Implement integrated pest management and improved landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials.	Yes	HUD will work with its Building Services division to implement integrated pest management practices.	Review IPM practices and determine if there are environmentally preferable alternatives to current practices and chemical use.
Develop or revise Agency Chemicals Inventory Plans and identify and deploy chemical elimination, substitution, and/or management opportunities.	Yes	HUD currently has a chemical inventory plan in place that is maintained by the HQ Safety and Health Specialist.	Review the current chemical inventory plan to identify unnecessary chemicals or potential substitutes by 12/31/16.
Inventory current HFC use and purchases.	NA	No HFC purchases.	
Require high-level waiver or contract approval for any agency use of HFCs.	NA		
Ensure HFC management training and recycling equipment are available.	NA		

Goal 8: Energy Performance Contracts

Performance Contracting Goal

E.O. 13693 section 3(k) requires that agencies implement performance contracts for Federal buildings. E.O. 13693 section 3(k)(iii) also requires that agencies provide annual agency targets for performance contracting. Agency's commitment under the President's Performance Contracting Challenge is insert total commitment level in contracts awarded by the end of calendar year 2016. Agency's targets for the next two fiscal years are:

N/A- HUD does not own any buildings and only has operational authority for its Headquarters, the Robert C. Weaver Building, which is a GSA owned facility. Recently HUD completed a large Energy Savings Performance Contract (ESPC) at this leased facility. Accordingly, HUD has not made any commitments toward President's Performance Contracting Challenge. The agency is currently studying the feasibility of additional ESPC work at HUD Headquarters and has identified several potential Energy Conservation Measures (ECMs).

Goal 9: Electronics Stewardship & Data Centers

Electronics Stewardship Goals

E.O. 13693 Section 3(l) requires that agencies promote electronics stewardship, including procurement preference for environmentally sustainable electronic products; establishing and implementing policies to enable power management, duplex printing, and other energy efficient or environmentally sustainable features on all eligible agency electronic products; and employing environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products.

Agency Progress in Meeting Electronics Stewardship Goals

Procurement Goal:
At least 95% of monitors, PCs, and laptops acquired meets environmentally sustainable electronics criteria (EPEAT registered).

FY 2015 Progress: 100%

Power Management Goal:
100% of computers, laptops, and monitors has power management features enabled.

FY 2015 Progress: 100% of equipment has power management enabled.
0% of equipment has been exempted.

End-of-Life Goal:
100% of electronics disposed using environmentally sound methods, including GSA Xcess, Computers for Learning, Unicor, U.S. Postal Service Blue Earth Recycling Program, or Certified Recycler (R2 or E-Stewards).

FY 2015 Progress: 100%

Data Center Efficiency Goal

E.O. 13693 Section 3(a) states that agencies must improve data center efficiency at agency facilities, and requires that agencies establish a power usage effectiveness target in the range of 1.2-1.4 for new data centers and less than 1.5 for existing data centers.

HUD has met or exceeded the target for six of the nine Data Center optimization metrics and is currently working to meet the target value for the three remaining metrics that includes Power Usage Effectiveness.

HUD’s ability to attain the OMB established target value for the three remaining metrics will require HUD to further consolidate data center resources and migrate from contractor-owned, contractor operated data center to multi-tenant, shared data centers. This effort will be accomplished under the HUD Enterprise and Architecture Transition (HEAT) initiative that restructures infrastructure services.

Electronics Stewardship Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Use government-wide strategic sourcing vehicles to ensure procurement of equipment that meets sustainable electronics criteria.	Yes	HUD's End User devices (desktops and laptops) are currently provided via an Infrastructure managed services contract. The HUD Enterprise and Architecture Transition (HEAT) initiative will move HUD towards M-16-02 compliance.	75% of HUD equipment meeting sustainable electronics criteria will be acquired via government-wide strategic sourcing vehicles
Enable and maintain power management on all eligible electronics; measure and report compliance.	Yes	HUD's HEAT initiative will establish metrics and monitoring capabilities for power management	Establish power management performance metrics by August 2017 Implement monitoring capabilities by December 2017
Implement automatic duplexing and other print management features on all eligible agency computers and imaging equipment; measure and report compliance.	No – HUD has already met requirement		
Ensure environmentally sound disposition of all agency excess and surplus electronics, consistent with Federal policies on disposal of electronic assets, and measure and report compliance.	Yes	It is HUD's policy to dispose of all excess and surplus electronics in an environmentally sound manner. HUD will ensure existing disposition policies are followed.	Review property disposition records to verify appropriate disposition practices.
Improve tracking and reporting systems for electronics stewardship requirements through the lifecycle: acquisition and procurement, operations and maintenance, and end-of-life management.	Yes	HUD's HEAT initiative will establish metrics and monitoring capabilities for electronic stewardship requirements	Establish electronic stewardship lifecycle performance metrics by August 2017 Implement monitoring capabilities by December 2017

Data Center Efficiency Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Develop, issue and implement policies, procedures and guidance for data center energy optimization, efficiency, and performance.	No – HUD will not own data center. Transitioning to multitenant data centers		

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Install and monitor advanced energy meters in all data centers (by fiscal year 2018) and actively manage energy and power usage effectiveness.	No – this is addressed by the multitenant data center		
Minimize total cost of ownership in data center and cloud computing operations.	Yes	HUD's HEAT initiative is further consolidating data center resources and migrating from contractor-owned, contractor operated data center to multi-tenant, shared data centers. These efforts will reduce HUD's data center costs.	Complete Data Center migrations Q1 2017 Assess data center cost savings Q2 2017
Identify, consolidate and migrate obsolete, underutilized and inefficient data centers to more efficient data centers or cloud providers; close unneeded data centers.	Yes	HUD's HEAT initiative is further consolidating data center resources and migrating from contractor-owned, contractor operated data center to multi-tenant, shared data centers. These efforts will reduce HUD's data center costs.	Complete Data Center migrations Q2 2017 Complete Transition out of COCO data centers Q3 2017
Improve data center temperature and air-flow management to capture energy savings.	No – this is addressed by the multitenant data center		
Assign certified Data Center Energy Practitioner(s) to manage core data center(s).	No – this is addressed by the multitenant data center		

Goal 10: Climate Change Resilience

E.O. 13653, *Preparing the United States for the Impacts of Climate Change*, outlines Federal agency responsibilities in the areas of supporting climate resilient investment; managing lands and waters for climate preparedness and resilience; providing information, data and tools for climate change preparedness and resilience; and planning.

E.O. 13693 Section 3(h)(viii) states that as part of building efficiency, performance, and management, agencies should incorporate climate-resilient design and management elements into the operation, repair, and renovation of existing agency buildings and the design of new agency buildings. In addition, Section 13(a) requires agencies to identify and address projected impacts of climate change on **mission critical** water, energy, communication, and transportation demands and consider those climate impacts in operational preparedness planning for major agency facilities and operations. Section 13(b) requires agencies to calculate the potential cost and risk to mission associated with agency operations that do not take into account such information and consider that cost in agency decision-making.

Climate Change Resilience Strategies

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Strengthen agency *external* mission, programs, policies and operations (including grants, loans, technical assistance, etc.) to incentivize planning for, and addressing the impacts of, climate change.	Yes	Update program policies and regulations, as specified in HUD's Climate Change Adaptation Plan	HUD, according to its FFRMS Implementation Plan, will update 24 CFR Part 55 to require higher flood elevation. (Action 1.5) HUD will enter into a MOU with the Association of State Floodplain Managers to promote the Section 203k program for hazard mitigation. (Action 1.10) HUD will review, through the Department's executive-level Climate Council, its existing building construction requirements with the goal of aligning program requirements with the most recent model building codes and standards for resilient construction. (Action 1.07) HUD will release a resilience toolkit to help CDBG and HOME grantees address climate change in their jurisdictions. (Action 2.01) HUD will publish a Final Rule incorporating natural hazards (including those influenced by climate change) into the Consolidated Plan. (Action 1.11)
Update and strengthen agency *internal* mission, programs, policies, and operations to align with the Guiding Principles, including facility acquisition, planning, design, training, and asset management processes, to incentivize planning for and addressing the impacts of climate change.	Yes		HUD will equip CPD Representatives with basic climate literacy, including knowledge of existing resources, to enable productive partnership with grantees. (Action 3.4)

Strategy	Priority for FY 2017	Strategy Narrative	Targets and Metrics
Update emergency response, health, and safety procedures and protocols to account for projected climate change, including extreme weather events.	No		
Ensure climate change adaptation is integrated into both agency-wide and regional planning efforts, in coordination with other Federal agencies as well as state and local partners, Tribal governments, and private stakeholders.	Yes		HUD will publish a Final Rule incorporating natural hazards (including those influenced by climate change) into the Consolidated Plan. (Action 1.11)
Ensure that vulnerable populations potentially impacted by climate change are engaged in agency processes to identify measures addressing relevant climate change impacts.	Yes		HUD will publish a Final Rule incorporating natural hazards (including those influenced by climate change) into the Consolidated Plan. (Action 1.11)
Identify interagency climate tools and platforms used in updating agency programs and policies to encourage or require planning for, and addressing the impacts of, climate change.	Yes		HUD will publish a Final Rule incorporating natural hazards (including those influenced by climate change) into the Consolidated Plan. (Action 1.11)

Appendices

1. Fleet Management Plan and VAM Report
2. Multi-Modal Access Plan

Appendix #1: *Fleet Management Plan and VAM Report*

FY 2016 FLEET MANAGEMENT PLAN AND BUDGET NARRATIVE
FOR
U.S. Department of Housing and Urban Development

INTRODUCTION THAT DESCRIBES THE AGENCY MISSION, ORGANIZATION, AND OVERVIEW OF THE ROLE OF THE FLEET IN SERVING AGENCY MISSIONS.

(1) Briefly describe your agency's primary/core mission and how your fleet is configured to support it.

HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market, bolster the economy, and protect consumers; meet the need for quality affordable rental homes; utilize housing as a platform for improving quality of life; and build inclusive and sustainable communities free from discrimination.

HUD accomplishes its mission through component organizations and offices that administer place-based programs, which are carried out through a network of regional offices and smaller field offices, as well as through grantees, contractors, and other business partners.

HUD's major Program Offices include:

- Office of Community Planning and Development
- Office of Fair Housing and Equal Opportunity
- Office of Housing/Federal Housing Administration
- Office of Lead Hazard Control and Healthy Homes
- Office of Policy Development and Research
- Office of Public and Indian Housing
- Government National Mortgage Association

Office of Inspector General (OIG)

The HUD Office of Inspector General (HUD OIG) is a law enforcement agency with the statutory authority to investigate crimes committed against the Department of HUD. The mission of HUD Office of Inspector General is to:

• Conduct and supervise independent audits, fraud reviews, evaluations, and civil and criminal investigations relating to the programs and operations of the Department;

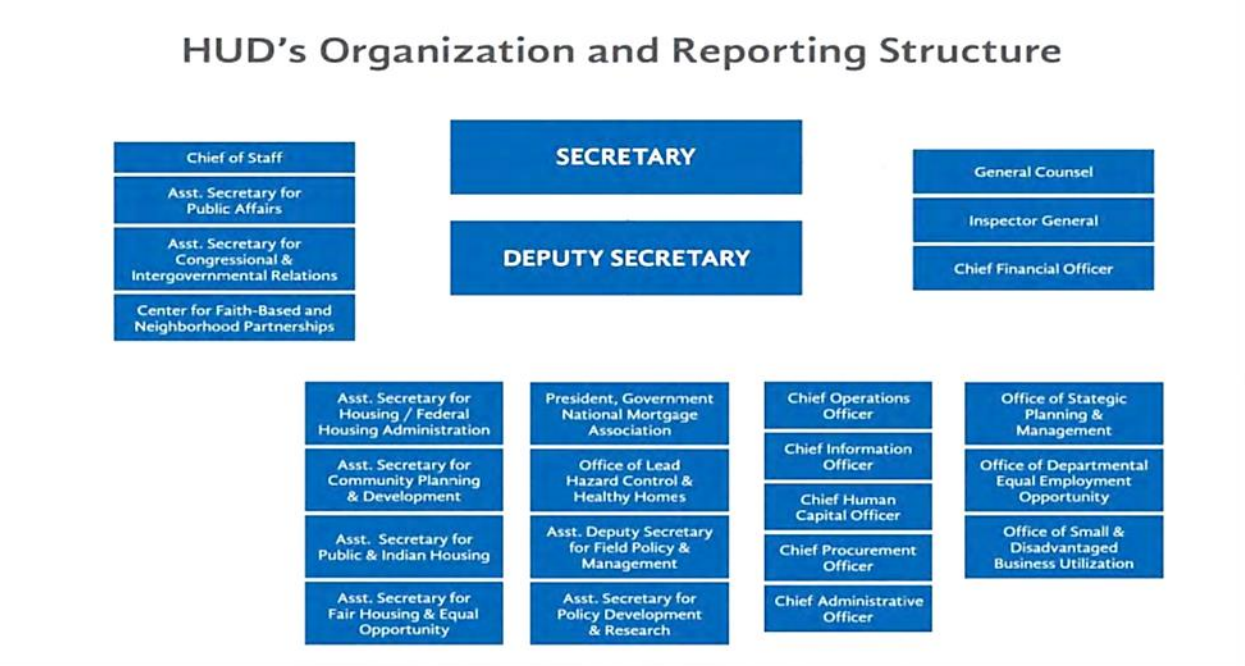
• Promote economy, efficiency, and effectiveness in the administration of HUD programs and operations;
• Prevent and detect fraud and abuse in such programs and operations;
• Provide a means for keeping the HUD Secretary and Congress fully informed about current problems and deficiencies; and
• Benchmark best practices and recommend corrective actions in HUD's programs and operations.

HUD OIG is comprised of five divisions: the Office of Audit, the Office of Investigation, the Office of Management and Technology, Office of Evaluations and the Office of Counsel.

The Office of Investigation is the HUD OIG law enforcement component with the responsibility of investigating crimes against the Department. The Office of Investigations is comprised primarily of GS-1811 Special Agents who are sworn law enforcement officers. In support of this mission, the Office of Investigation needs to lease vehicles that will enable the special agents to perform their law enforcement duties without restrictions and provide the flexibility to be able to accommodate routine operational challenges such as the transportation of subjects and evidence obtained during the course of their investigations. The vehicles also must be capable of storing specialized equipment needed by each agent when they are performing their investigative and law enforcement duties.

(2) Please describe the organizational structure and geographic dispersion of your fleet.

HUD's organizational and reporting structure appears below.



HUD is organized by 10 Regions with Field Offices located in the various regions. The chart below identifies the Field Offices by Region.

Regional Office Locations	Field Office Locations within each Region
I-Boston, MA	Connecticut, Vermont, Massachusetts, Maine, New Hampshire
II-New York, NY	New York, New Jersey
III- Philadelphia, PA	Pennsylvania, Virginia, West Virginia, Maryland, Delaware, Washington, DC
IV- Atlanta, GA	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Puerto Rico, U.S. Virgin Islands
V-Chicago, IL	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
VI- Ft. Worth, TX	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
VII- Kansas City, KS	Kansas, Iowa, Missouri, Nebraska
VIII- Denver, CO	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
IX- San Francisco, CA	California, Arizona, Hawaii, Nevada
X- Seattle, WA	Washington, Alaska, Idaho, Oregon

The Chief Administrative Officer (CAO) is responsible for Fleet Management in the Department. The Office of Facilities Management Services and the Office Field Support Services, which both report to

the Chief Administrative Officer, manage the Department's fleet in HUD Headquarters and in HUD Field Offices. The Departmental Fleet Manager provides policy oversight and direction.

Geographical Dispersion of HUD's Fleet – Program and OIG

To support HUD's mission, the program offices and OIG have a total of 341 vehicles. The geographic breakdown is as follows:

Office Location	Program	OIG
Albuquerque, NM	2	
Atlanta, GA	7	11
Baltimore, MD	3	2
Baton Rouge, LA		2
Billings, MT		1
Birmingham, AL	2	3
Boise, ID	1	
Boston, MA	4	4
Brandon, MS		1
Buffalo, NY	3	
Casper, WY	1	
Charleston, WV	1	
Chicago, IL	6	18
Cleveland, OH	3	6
Columbia, SC	1	
Columbus, OH	4	2
Denver, CO	2	8
Des Moines, IA	1	
Detroit, MI	4	5
Fargo, ND	1	
Ft. Wayne, IN		2
Fort Worth, TX	2	8
Grand Rapids, MI		1
Greensboro, NC	2	2
Hartford, CT	2	2
Helena, MT	1	
Honolulu, HI	1	
Houston, TX		8
Indianapolis, IN	3	
Jacksonville, FL	3	
Jackson, MS	1	
Kansas City, KS	3	7
Knoxville, TN	1	

Office Location	Program	OIG
Las Vegas, NV	1	1
Little Rock, AR	1	1
Los Angeles, CA	5	14
Louisville, KT	4	
Manchester, NH	2	3
Memphis, TN	1	
Miami, FL	3	7
Milwaukee, WI	2	
Minneapolis, MN	4	3
Nashville, TN	2	
New Orleans, LA	1	8
New York, NY	5	14
Newark, NJ	3	6
Oklahoma City, OK	1	1
Omaha, NE	1	
Philadelphia, PA	6	11
Phoenix, AZ	4	2
Pittsburgh, PA	1	2
Portland, OR	1	
Providence, RI	1	
Richmond, VA	2	2
Sacramento, CA		1
Saint Louis, MO	1	3
Salt Lake City, UT	1	2
San Antonio, TX	1	2
San Francisco, CA	3	5
San Juan, PR	2	
Santa Ana, CA	1	
Seattle, WA	5	3
Sioux Falls, SD	1	
Tampa, FL		5
Vado, NM		1
Vancouver, WA		3
Washington, DC	1	16
Total	132	209

(3) Describe your agency's ancillary missions, such as administrative functions, and how your fleet supports them.

HUD accomplishes its mission through program offices that administer place-based programs, which are carried out through regional and state offices. To carry out the mission of each program office, employees must make frequent visits to grantees and municipalities to monitor projects; conduct audits; review projects; inspect construction sites; meet with state, county and local officials'; contractors; and grantees. Trips are frequently to small communities where vehicles are the only means of transportation to reach the destination. Vehicles are not used to support the administrative functions of the organization.

(4) Describe how vehicles are primarily used, and how do mission requirements translate into the need for particular vehicle quantities and types.

Vehicles are maintained and reserved for use by HUD employees conducting official business to meet HUD's mission and goals. Among the specific vital activities for accomplishing HUD's mission are: management reviews, single and multifamily housing inspections, pre-construction meetings, off-site training and conferences, customer outreach, and meeting with HUD grantees and clients.

DESCRIPTION OF VEHICLE ACQUISITION/REPLACEMENT STRATEGIES.

(1) Describe your agency's vehicle sourcing strategy and decision(s) for purchasing/owning vehicles compared with leasing vehicles through GSA Fleet or commercially. When comparing the cost of owned vehicles to leased vehicles, you should compare all direct and indirect costs projected for the lifecycle of owned vehicles to the total lease costs over an identical lifecycle. Include a rationale for acquiring vehicles from other than the most cost effective source. Note: Information on calculating indirect cost is contained in FMR Bulletin B-38, Indirect Costs of Motor Vehicle Fleet Operations.

Vehicles used in HUD field offices are all GSA leased and there are a limited number of commercially leased vehicles.

(2) Describe your agency's plans and schedules for locating AFVs in proximity to AFV fueling stations.

Each vehicle scheduled for replacement is evaluated for an AFV replacement, where alternative fuel locations are available, to ensure continued alignment with the department's policy to increase the number of AFV vehicles. The Department, in effort to provide awareness and increase usage of alternative fuel, reminds program offices whose vehicles are in proximity of alternative fueling stations to use them frequently. HUD also uses the Department of Energy's (DOE) Federal Energy Management Programs (FEMP), Sustainability Fleet Dashboard (FleetDash). The dashboard allows the fleet manager to see the fuel use for individual vehicles.

(3) Describe your agency's approach to areas where alternative fuels are not available and whether qualifying low greenhouse gas (LGHG) vehicles or ZEVs are being placed in such areas.

HUD always acquires the most fuel efficient, least greenhouse gas emitting vehicle possible regardless of location.

(4) EO13693 requires agencies to reduce greenhouse gas (GHG) emissions as compared to a 2014 baseline. Describe your agency's plans to meet this goal. If funding is required to comply with this mandate, do you have documentation that it has been requested?

HUD's plan to meet the goal of reducing GHG emissions will be accomplished through the implementation of several of the emission reduction strategies given by the Environmental Protection Agency (EPA). Two EPA strategies planned for implementation are: increasing the number of hybrid vehicles and electric vehicles; and improving driving practices and vehicle maintenance. HUD is researching the costs/benefits of increasing the number of electric vehicles in our fleet. The VAM study identified 32 vehicles as low mileage, but justification was provided indicating the critical need for the vehicles to fulfill the office mission. These vehicles may be candidates for conversion to electric and hybrid vehicles in the future. Additionally, the VAM survey identified 25 vehicles between 4 and 6 years old, which is above the GSA Replacement Vehicle limits. HUD will continue disposing older vehicles to mitigate the costs of maintenance and relatively poor fuel economy.

(5) EO13693 requires agencies to acquire zero emission vehicles (ZEVs) as an increasing percentage of passenger vehicle acquisitions. Describe your agency's plans to meet this goal. If funding is required to comply with this mandate, do you have documentation that it has been requested? (Note: Do not attach or provide funding documentation unless requested)

HUD will use the results from the 2016 VAM study to determine vehicles that will be best candidates for conversion to ZEV vehicles. HUD would use internal funding options as well as looking into the federal incentive program entitled "Low and Zero Emission Vehicle Research, Demonstration, and Deployment Funding" offered by the U.S. Department of Transportation.

DESCRIPTION OF TELEMATICS RELATED ACQUISITION STRATEGIES.

(1) EO13693 requires agencies to incorporate telematics into the fleet. Describe your agency's plans to meet this goal.

In order to begin using telematics to help meet the agency's goals HUD will work with the labor unions in the Department. HUD will then work with GSA to acquire and install the necessary equipment.

(2) If funding is required to comply with this mandate, do you have documentation that it has been requested? (Do not attach or provide funding documentation unless requested).

Funding is required to comply with the mandate. HUD is researching the costs for the required equipment for all replacement vehicles and funding will be requested in the FY 2017 budget cycle.

(3) Has the agency acquired the telematics system through GSA or directly from a vendor/company? If so, provide the name of the vendor/company. Did the costs of telematics systems acquired directly from the vendor/company exceed those provided through GSA? If so, please provide rationale for the decision.

HUD's intent is to install the telematics system through GSA for all replacement vehicles.

(4) Describe the type of telematics technology installed (satellite, cellular or radio frequency identification (RFID)).

Not applicable at this time.

(5) What type of telematics features are installed in your vehicles? Check all that apply from the list below: (Note – When the form is finalized, there will be check boxes or drop down box included on the template)

Not applicable at this time.

GPS tracking - Fleet managers can monitor the location of their vehicles in real-time by logging on to a user accessible website.
Engine diagnostics - Fleet managers can have engine diagnostics reports delivered to their email showing the current condition of the vehicle, odometer readings, idle time, emissions information and speed data.
Vehicle monitoring and driver identification - Fleet managers can track a driver of every vehicle via the usage of key fobs for the drivers or in-vehicle devices and can track who is, or was, driving any given vehicle at any particular time, as well as limit who can operate which vehicles.
In-vehicle recording – This solution uses inward and outward facing cameras to record the driver's behavior as well as the vehicle's surroundings. The device saves the footage from several seconds before and after a sudden movement occurs, such as sudden stop or hard turn.
Instant driver feedback – This system provides an immediate, private, in cabin indication via light activation within the driver's line of sight. The feedback device is designed to track and report harsh breaking, sudden acceleration, cornering/high speed turns, unsafe lane changes and speeding (with a pre-determined speeding threshold).
Other – Describe other service
Fuel Usage - Information on gallons of fuel and subsequent MPG calculations.

(6) Describe the obstacles encountered, lessons learned, and any experiences or other information that may benefit other agencies. Consideration should be given to the impact that aftermarket telematics may have on vehicle warranties.

Not applicable at this time.

DESCRIPTION OF EFFORTS TO CONTROL FLEET SIZE AND COST.

(1) Provide an explanation for any measurable change in your agency's fleet size, composition, and/or cost or if you are not meeting optimal fleet goals (based on agency VAM study results).

HUD is meeting its goals.

(2) Describe the factors that hinder attainment of your optimal fleet (e.g., budgetary, other resource issues, mission changes, etc.).

There are no factors that should prevent HUD from obtaining its optimal fleet.

(3) Discuss any trends toward larger, less fuel-efficient vehicles and the justifications for such moves.

HUD will continue efforts to lease vehicles that are fuel-efficient, and compact in size whenever possible. We do not foresee a trend of leasing larger, less fuel –efficient vehicles. 79% of HUD's total fleet is class III or lower.

(4) Are you aware of and do you consider alternatives (short term rental, pooling, public transportation, etc.) to adding a vehicle to the agency's fleet?

HUD is aware of alternative forms of transportation. Vehicles used by program offices are most often in smaller communities where mass transit and other forms of transportation are not available. In addition, the cars are used for either short distance trips to locations that can only be reached by a vehicle or for short daily trips to visit projects and construction sites. Most HUD field offices are not in locations with other federal agencies to enable fleet sharing.

(5) Discuss the basis used for your future cost projections (published inflation estimates, historical trends, flat across-the-board percentage increases, mission changes, etc.)

HUD has traditionally used the GSA Drive Thru System to report the fleet operating cost. We will be using GSA's VCSS billing system to develop future projections on operating cost. Out-year cost projections are based on a 0.9 percent inflation rate.

DESCRIPTION OF VEHICLE ASSIGNMENTS AND VEHICLE SHARING

(1) Describe how vehicles are assigned at your agency (i.e., individuals, offices, job classifications, motor pools).

Non-law enforcement vehicles used in field office locations are assigned based on program office needs, no availability of other forms of transportation, and actual vehicle usage. Although technically assigned to a program office the vehicles are shared by all program offices within the field office based on mission priority.

(2) Describe your agency's efforts to reduce vehicles assigned to a single person wherever possible.

Non-law enforcement vehicles are not assigned to a single person. According to the 2016 VAM survey many offices have a high user-to-vehicle ratio of 50 or more.

(3) Describe pooling, car sharing, and shuttle bus consolidation initiatives as well as efforts to share vehicles internally or with other Federal activities.

HUD employees in regional and field offices share GSA leased vehicles. We currently do not do pooling or share vehicles with other federal agencies.

(4) Describe how home-to-work (HTW) vehicles are justified, assigned, and reported, as well as what steps are taken by your agency to limit HTW use.

GSA leased vehicles in the HUD regional and field offices, which are non-law enforcement vehicles, are not used for home-to-work. The policy appears in HUD's fleet management handbook.

(5) Does your agency document/monitor the additional cost of HTW use of Federal vehicles? If so, please describe how.

Not applicable.

EVIDENCE OF VEHICLE ALLOCATION METHODOLOGY (VAM) PLANNING.

Provide information on the methods used to determine your agency's VAM targets/optimal inventory. (Recommendation #2 from GAO report: GAO-13-659. See FMR Bulletin B-30 for guidance on conducting a VAM study and developing VAM targets).

(1) What is the date of your agency's most recent VAM study?
Please describe the results (Add/Reduce/Change vehicle types, sizes, etc.). Have all bureaus been studied?

The agency's most recent VAM study was conducted in May 2016. The VAM study identified 32 vehicles that have low mileage, as well as 15 cases where vehicles might be able to be replaced by using other methods of transportation to fulfill the program office mission. The 32 vehicles with low mileage may be returned to GSA or replaced with alternative fuel vehicles after further research on which alternative best suits HUD's requirements.

The study also identified 25 vehicles that have reached the GSA replacement schedule standards. Since program offices have stated that the vehicles are critical to completing the mission the vehicles may be replaced with electric or hybrid electric vehicles.

The OIG was not included in this most recent VAM study as they have law enforcement vehicles.

(2) From your most recent VAM study, please describe/provide the specific utilization criteria (miles, hours, vehicle age, or other measures) used to determine whether to retain or dispose of a vehicle? If different criteria were used in different bureaus or program areas, provide the criteria for each.

The agency follows the GSA leased vehicles replacement standards. The VAM study criteria that were instrumental in determining whether to retain or dispose of a vehicle were:

- vehicle age
- availability of alternative transportation options
- mileage report.

(3) From your most recent VAM study, what were the questions used to conduct the VAM survey (see FMR Bulletin B-30(6) (C)) (if lengthy, provide as an attachment)? If different questions were used by different bureaus or program areas, provide the questions for each. If a VAM survey was not conducted, please describe the methods used to apply utilization criteria to each vehicle in your agency's fleet and collect subjective information about each vehicle that potentially could provide valuable insights/explanations into the objective criteria.

See Appendix A for VAM questions.

DESCRIPTION OF THE AGENCY-WIDE VEHICLE MANAGEMENT INFORMATION SYSTEM (SEE FMR 102-34.340)

Federal agencies are to begin collecting asset level data (ALD) beginning October 1, 2016 in order to be able to report ALD in the October-December 2017 FAST data call. To comply, your agency will need a management information system (MIS) capable of reporting inventory, cost, usage, and other information on a "per vehicle" basis.

(1) Does your agency have a vehicle management information system (MIS) at the Department or Agency level that identifies and collects accurate inventory, cost, and use data that cover the complete lifecycle of each motor vehicle (acquisition, operation, maintenance, and disposal), as well as provides the information necessary to satisfy both internal and external reporting requirements?

HUD uses GSA Drive Thru as the vehicle management information system.

(2) Your agency was provided a draft list of 70 ALD data elements. How many of the 70 data elements is your current system able to report on a "per vehicle" basis right now?

We are able to report on all 70 elements for the GSA leased vehicles in our fleet, through GSA Drive Thru system.

(3) Describe your agency's plan for reporting all required ALD elements. What is the timeline?

HUD will have no problem in reporting all the ALD elements for our GSA leased vehicles because the GSA Drive Thru system generates this information for the fleet. GSA offers a free vehicle management information system (MIS) to federal agencies that have agency-owned vehicles; however, the Secretary's fleet is commercially leased. GSA has been contacted to determine if the system can be used for the four commercially leased vehicles.

(4) If your agency does not currently have a system capable of reporting ALD, describe the steps (documented) that are being taken or have been taken to comply with Executive Orders, regulations, and laws that require such a system.

As noted above, we are working with GSA to be able to report the four commercially leased vehicles on the GSA system. If this option is not possible we will use Microsoft SharePoint or Excel to capture the data elements for the commercially leased vehicles.

(5) If your agency currently uses telematics systems, does your MIS capture and report all of the data from those devices?

Not applicable at this time. HUD does not yet use telematics.

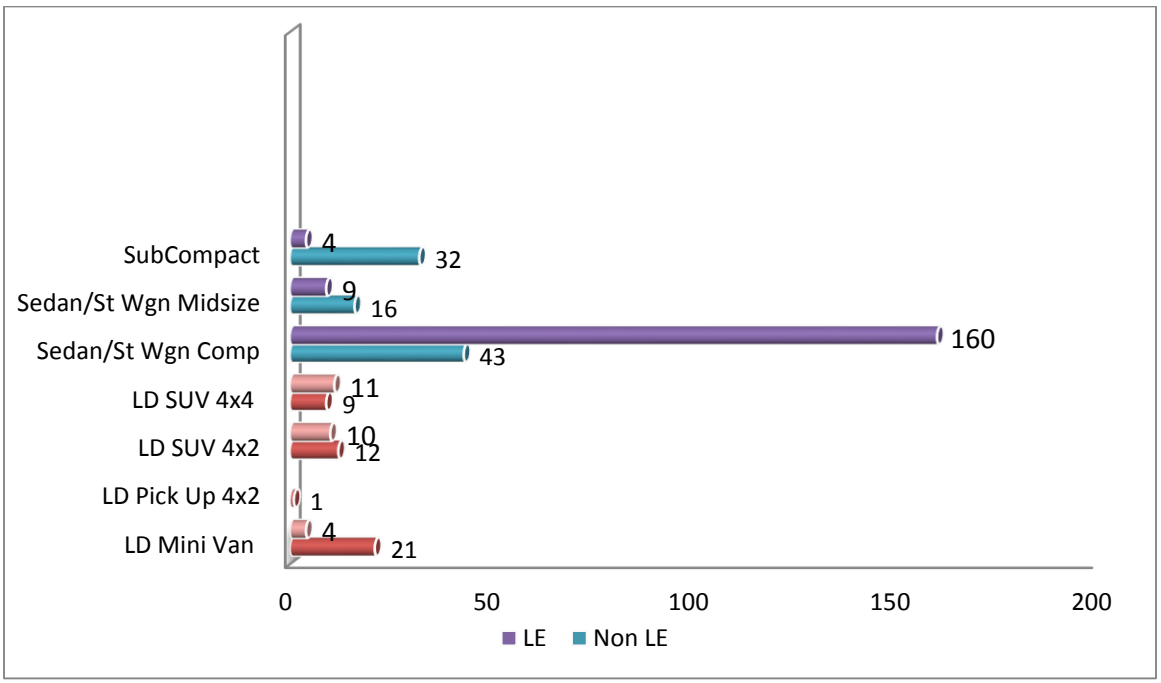
JUSTIFICATION FOR RESTRICTED VEHICLES.

(1) If your agency uses vehicles larger than class III (midsize), is the justification for each one documented?

Class IV non-law enforcement vehicles account for 12% (43 vehicles) of the total fleet (332 vehicles). Law enforcement OIG class IV vehicles account for 7% (25 vehicles) of the total fleet (332 vehicles).

HUD policy requires all vehicles to be compact or subcompact and low greenhouse gas emitting vehicles. If a larger vehicle is needed a written justification is submitted to the Departmental fleet manager for approval.

The chart below outlines the details of vehicle type by class. The vehicle class type with the red bar is Class IV non-law enforcement. The lighter colored bar is OIG's class IV law enforcement vehicles.



(2) Does your agency use the law enforcement (LE) vehicle classification system described in GSA Bulletin FMR B-33? If not, why not?

The agency uses the LE vehicle classification system described in GSA Bulletin FMR B-33.

(3) If your agency reports limousines in its inventory, do they comply with the definition in GSA Bulletin FMR B-29?

HUD does not have limousines in its fleet.

(4) For armored vehicles, do you use the ballistic resistance classification system of National Institute of Justice (NIJ) Standard 0108.01, and restrict armor to the defined types?

HUD does not have armored vehicles.

(5) Are armored vehicles authorized by appropriation?

HUD does not have armored vehicles.

IMPEDIMENTS TO OPTIMAL FLEET MANAGEMENT.

(1) Please describe the obstacles your agency faces in optimizing its fleet.

HUD does not foresee any obstacles in optimizing the fleet.

(2) Please describe the ways in which your agency finds it hard to make the fleet what it should be, operating at maximum efficiency.

HUD does not have any present challenges with operating at maximum efficiency.

(3) If additional resources are needed, (such as to fund management information system implementation or upgrades, or to acquire ZEVs, or LGHG vehicles, or install alternative fuel infrastructure) have they been documented and requested? Do you have a copy of this documentation? (do not attach or furnish unless requested).

HUD has begun gathering information on the most cost effective, advantageous and practical telematics type and EV station type that will allow HUD to meet the mandates required for fleet. Once the information is gathered a plan of action will be developed.

(4) Describe what specific laws, Executive Orders, GSA's government-wide regulations or internal agency regulations, budget issues, or organizational obstacles you feel constrain your ability to manage your fleet. Be specific and include examples. If you have a solution, describe it and indicate whether we can share the solution with other agencies as a potential best practice.

There are no obstacles at present that constrain HUD's ability to manage the fleet.

ANOMALIES AND POSSIBLE ERRORS.

(1) Explain any real or apparent problems with agency data reported in FAST.

There are no problems with the agency data reported in FAST.

(2) Discuss any data fields highlighted by FAST as possible errors that you chose to override rather than correct. Examples would be extremely high annual operating costs or an

abnormal change in inventory that FAST considers outside the normal range, or erroneous data in prior years causing an apparent discrepancy in the current year.

There are no errors in the FAST data.

(3) Explain any unresolved flagged, highlighted, or unusual-appearing data within FAST.

There are no anomalies and possible errors in the reporting agency data reported in FAST.

SUMMARY AND CONTACT INFORMATION.

In conclusion HUD is making great strides and efforts to meet the mandates of reducing petroleum consumption, GHG emissions, increasing alternative fuel, and right-sizing fleet. These goals are being met by continuing a campaign to provide awareness on alternative fuel that includes an internal fleet memo called HUD Highlights, implementing mandatory defensive driver's training and fuel economy training, working with outside organizations such as FEMP, to build electrical charging stations, and utilizing Fleet applications such as alternative fuel station locator, and FLEET DASH. HUD is confident that through these efforts we will be able to meet the goals of the fleet mandates.

(1) Who should be contacted with questions about this agency fleet plan? (Provide the name and contact information for the agency headquarters fleet manager and the person preparing this report if different)

Dr. Lesley N. Wright, Management Analyst, Property Management Branch, 202-402-5171
lesley.n.wright@hud.gov

(2) Indicate whether the budget officer participated in the VAM and A-11 processes. (Provide the name and contact information for the budget office reviewing official).

The budget officer will participate in the VAM and A-11 processes.
David N. Kruse, Office of Chief Financial Officer, 202-402-6611, david.n.kruse@hud.gov

(3) Indicate whether the Chief Sustainability Officer participated in the VAM, vehicle planning, and vehicle approval processes. (Provide the name and contact information for the CSO reviewing official).

Yes, the Chief Sustainability Officer participated in the processes.
Patricia Hoban-Moore, Chief Sustainability Officer, Chief Administrative Officer, 202-402-4254, patricia.a.hoban-moore@hud.gov

Appendix #2: *Multi-Modal Access Plan*

HUD MULTIMODAL ACCESS PLAN

Pursuant to E.O. 13693, *Planning for Federal Sustainability in the Next Decade*

June 2016

OVERVIEW

Executive Order (E.O.) 13693, *Planning for Federal Sustainability in the Next Decade*, Section 7(f), requires Federal agencies to consider the development of policies to promote sustainable commuting and work-related travel practices for Federal employees through strategies like workplace electric vehicle charging, bicycling and other forms of active commuting, increased telecommuting and teleconferencing, and incentivizing carpooling and the use of public transportation where consistent with agency authority, Federal appropriations and other law.

The following plan provides the framework for HUD's Multimodal Access Plan (MAP) and includes the following sustainable commuting and workplace travel strategies:

I. Workplace Charging

II. Bicycling and other forms of Active Commuting

During the upcoming reporting period, HUD will be researching and incorporating additional strategies to further strengthen this MAP. This will include updates on HUD's progress in areas such as telework and teleconferencing expansion, carpooling, transit strategies.

I. Agency Workplace Charging Plan

The Fixing America's Surface Transportation Act (FAST Act) authorizes the General Services Administration (GSA) and other Federal agencies to install, operate and maintain plug-in electric vehicle (PEV) charging stations for privately owned PEVs in parking areas used by Federal employees and authorized users, and requires the collection of fees to recover these costs. The provision of PEV charging stations at the workplace can reduce greenhouse gas (GHG) emissions by encouraging the displacement of commuters' petroleum fuel with lower-emission electricity. Executive Order 13693 section 7(f) instructs the Federal government to consider the development of policies to promote sustainable commuting and work related travel practices including workplace vehicle charging for Federal employees, where consistent with agency authority and Federal appropriations law.

A. Summary of Strategy:

- Gauge employee interest in EVs – i.e. survey headquarters (HQ) employees to determine estimated needs for EV charging
- Deploy the use of existing unmetered, level-one (UML1) EV charging (e.g., 120v wall outlets) and/or feasibility for low level alteration to install additional outlets at the HQ parking facility
- Training and outreach for employees on the benefits of commuting in an EV
- Provide training on safety and other operational considerations of EVs
- Assess progress and plans to provide infrastructure at facilities that are leased and managed through the GSA

B. Details of Strategy:

1. Actions and Projected Timeframes

- Meet with FEMP Tiger Team by end of July 2016
- Conduct employee survey at HQ to determine interest and estimated baseline needs for EV charging stations – August 2016
- Draft HUD's Workplace Charging Plan (WCP) – October 2016
- Work with parking facility management to determine quantity of parking spaces that can be serviced by UML1 followed by any plans to install metered and higher-speed EVSE – October 2016

2. Roles and Responsibilities of Key Agency Personnel

- **Fleet Manager:** Lesley Wright
- **Parking management contractor:** Systems Parking
- **CSO-representative for agency WPC:** Jacob Weisman

3. Outreach to Agency Employees and Visitors

- Include of EVSE usage and PEV operation and safety tips as part of agency employees' available online training courses
- Signage to both alert EV drivers and promote the fact that EVSE equipment is available for use of Federal employees and authorized users

4. Incentivizing EV Usage

- Explore the possibility for providing parking permit priority to EV users.
- Provide employees with information and explanation of Federal, State, and local EV tax credits and rebates
- Make employees and authorized users aware of the flat rates they can pay to use charging infrastructure at Federal parking facilities

5. Assessing Demand

- Conduct employee survey at HQ to determine interest and estimated baseline needs for EV charging stations
- Issue EV charging permits per CEQ guidance[1] to track demand

6. Ensuring Continued Success

- Conduct agency self-assessments periodically to gauge success of a WPC and changing employee interest in EVs

II. Agency Bicycling and Active Commuter Program

A. Summary of Strategy:

- Gauging employee interest in bicycle and other forms of active commuting
- Developing bicycle infrastructure (e.g., bike racks, showers, signage)
- Encouraging bicycle and active commuting through outreach
- Employee and visitor education on safety and security
- Periodic evaluation of overall BACP efforts

C. Details of Strategy:

1. Actions and Projected Timeframes

- Draft agency BACP – December 2016
- Assess bicycle storage and shower access for HUD facilities that are leased and managed through GSA – December 2016
- Work with agency security office to establish best practices for bicycle security outside of an Agency's building – October 2016

2. Roles and Responsibilities of Key Agency Personnel

- **CSO-representative for agency BACP:** Jacob Weisman
- **Headquarters Operations Facility Team:** Team to draft BACP

3. Outreach to Agency Employees and Visitors.

- Inclusion of bicycle and other forms of active commuting as part of agency employees' available online training courses
- Outreach and encouragement through online media, email campaigns, common area video bulletins

4. Incentivizing Bicycle Usage and other Forms of Active Commuting

- HUD HQ Capitol Bikeshare subsidy program

5. Assessing Demand for Bicycle and other Active Commuter Needs

- Use HUD Federal Commuter Survey to help assess demand and interest.
- Issue bicycle parking permits to frequent users to better track usage

6. Ensuring Continued Success

- Conduct agency self-assessments periodically to gauge success of a BACP